### PRECISION SURFACES INTERNATIONAL, INC.

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### **CONSUMABLES FOR SUPERFINISHING**

DYNABRADE TOOLS CARBIDE BURRS

DIAMOND MOUNTED POINTS 3M FLEXIBLE DIAMOND

3M DIAMOND MICROFINISHING FILM 3M TRIZACT DIAMOND CLOTH BELTS

3M DIAMOND CLOTH DRY BELTS & DISCS 3M DIAMOND CLOTH

3M DIAMOND LAPPING FILM 3M LAPPING FILM

3M MICROFINISHING FILM 3M POLISHING PAPER

DIAMOND COMPOUND (PASTE) DIAMOND SUSPENSION



### AS A CUSTOMER OF PSI, YOU WILL LIKE TO KNOW:

- 1. Your complete satisfaction is our primary goal.
- 2. You are always assured of receiving the finest quality products available.
- Your purchasing convenience is an important part of our service. Our toll-free line allows you to order nine hours a day. If you prefer to order by FAX, you may do so at any time of the day or night at 713-426-2223. Orders are also accepted via e-mail to psiorders@psidragon.com or through our store at www.psidragon.com.
- 4. You are assured of receiving the best prices possible. You be the judge; compare our prices.
- Your order will be processed quickly and efficiently. If we cannot ship your order within ten working days, you will be advised.
- 6. Prices are subject to change. You will be advised of any price change at time of order.
- 7. Orders are shipped F.O.B. PSI. We will prepay and add the freight charges to the invoice. U.S. Department of Transportation defined "Hazardous Materials" will be packaged as required and a carrier's surcharge will be added to the invoice.
- 8. Our payment terms are Net 30 Days, with approved credit.
- 9. We accept VISA, MasterCard, American Express, and Discover charge cards.
- 10. Quantity discounts are available as shown.

We appreciate your business.
Our prosperity and very existence is totally dependent on our customers' good will.

#### Important notice to the purchaser:

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties expressed or implied: Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use or the inability to use the product. Before using, user shall determine the suitability of the product for its intended use, and user assumes all risk and liability whatsoever in connection therein. No statement or recommendation not contained herein shall have any force or effect unless in an agreement by officers of seller and manufacturer.

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### **DYNABRADE TOOLS**

We are pleased to widen our current offering of Dynabrade tools and services to include:

- Dynafile Belt Tools
- Pencil Grinders
- Die Grinders (Straight or Angle)
- Dynadie III Reciprocating Filer
- Superfinisher
- Tool Post Belt Grinders



- Versatility Grinder
- Contact Arms
- Couplers and Connectors
- Modular Filter-Regulator-Lubricator
- Coolant Filtration System
- Dynabrade Tool Repair

Please feel free to contact us if you have any questions or if you are looking for a specific tool we do not list. We would be glad to discuss our products with you.



### DYNABRADE TOOLS DYNAFILES

DESCRIPTION	PSI#
Dynafile "Original" Belt Machine, ½" x 24" (13mm x 609mm), 11218 Arm	DYN-14000
Contact Arm, Turbine Blades, 5/16" x 3/8" wide, Steel Wheel	DYN-11213
Contact Arm, Standard, 5/8" x 3/8" wide, Rubber Wheel	DYN-11218
Dynafile II Belt Machine, ½" x 18" (13mm x 457mm), 11206 Arm	DYN-40320
Contact Arm, Narrow, 5/16" x 3/8" wide, Steel Wheel	DYN-11201
Contact Arm, Standard, 5/8" x 3/8" wide, Rubber Wheel	DYN-11203
Contact Arm, Standard, 3/4" x 5/8" wide, Rubber Wheel	DYN-11206
Contact Arm, Turbine Blades, 1/4" x 3/8" wide, Steel Wheel	DYN-11300
Contact Arm, Turbine Blades, 5/16" x 3/8" wide, Steel Wheel	DYN-11301





### **PENCIL GRINDERS**

DESCRIPTION	COLLET	CAP COLOR	RPM	PSI#
Precision Pencil Grinder	1/8"	Red	35,000	DYN-51706
Precision Pencil Grinder	1/8"	Gold	50,000	DYN-51703
Precision Pencil Grinder	1/8"	Teal	60,000	DYN-51700
Precision Pencil Grinder	1/8"	Silver	100,000	DYN-51810



#### **DIE GRINDERS**

DESCRIPTION	COLLET	RPM	PSI#
Straight-Line, Standard Duty, Gearless, Extended Muffler	1/4"	25,000	DYN-48201
Straight-Line, Heavy Duty, Steel Housing, Rubber Grip	1/4"	24,000	DYN-53808
Right-Angle, Geared Head, Rear Exhaust, Extended Muffler	1/4"	20,000	DYN-50002
Right-Angle, 7°Offset, Gearless, Rear Exhaust, Ext Muffler	1/4"	25,000	DYN-52205



#### **RECIPROCATING FILER**

DESCRIPTION	201157	0014	DOI #
DESCRIPTION	COLLET	SPM	PSI #
Dynadie III, Variable-Length Stroke 0-1/4", Shanked Files	1/8" & 1/4"	5,000	DYN-12250



### **TOOL POST MACHINES**









DESCRIPTION	PSI#
Superfinisher, Tool-Post Mounted, 115 Volt, Adaptable Configuration	DYN-64000
1" to 4" (25mm to 102mm) wide rolls	
1" Contact Wheel Assembly, 1" (25mm) Wide, 70 Durometer	DYN-63981
2" Contact Wheel Assembly, 2" (51mm) Wide, 70 Durometer	DYN-63984
3" Contact Wheel Assembly, 3" (76mm) Wide, 70 Durometer	DYN-63987
4" Contact Wheel Assembly, 4" (102mm) Wide, 70 Durometer	DYN-63990
Precision Wet Tool Post Grinder, 230 Volt, Air-Powered Belt Tensioning 2" x 36" (51mm x 914mm) belt 4,500 SFPM	DYN-64991
Precision Wet Tool Post Grinder, 230 Volt, Air-Powered Belt Tensioning 2" x 48" (51mm x 1.22m) belt 2,500 – 10,500 SFPM	DYN-65752
Versatility Grinder, Variable Speed, 115 Volt, Adaptable Configuration 1/4" - 2" x 72" (6mm - 51mm x 1.3m) belt 600 - 4,000 SFPM	DYN-64900
Versatility Grinder Slack Arm Attachment: Curved, Tapered, Convex Shapes 1/2" – 2" x 96" (13mm x 2.44m) belt	DYN-67250

### **DYNABRADE ACCESSORIES**







DESCRIPTION	PSI#
Dynabrade Tool Repair	Contact US
Contact Arms – Available for various applications	Contact US
Contact Wheel Assemblies for Contact Arms	Contact US
Platen Pads – Available for various applications	Contact US
Dynabrade Parts and Accessories not listed are available	Contact US
Air Tool Couplers, Composite, Teal, 1/4"NPT Inlet, Female	DYN-94920
Air Tool Couplers, Composite, Teal, 1/4"NPT Inlet, Male	DYN-94980
Dynaswivel Air Line Connector, Composite, 1/4"NPT Inlet	DYN-94300
Dynaswivel Air Line Connector with Flow Control, 1/4"NPT Inlet	DYN-94407
Modular Filter-Regulator-Lubricator for Air Supply	DYN-10681
Coolant Filtration System, Portable, 40 gallon tank	DYN-68000
5 micron Disposable Filter Cartridge	DYN-66635
1 micron Disposable Filter Cartridge	DYN-66631

CARBIDE BURRS (1/8" SHANK)						
SHAPE	TOOL STYLE	CUT STYLE	CUTTER DIAMETER	FLUTE LENGTH	SHANK	PSI#
Burr Kit (12 Pieces)	All 1/8" Styles	Double	Various	Various	1/8"	DYN-93351
Cylinder	SA-42	Double	3/32"	7/16"	1/8"	DYN-93338
Cylinder	SA-43	Double	1/8"	9/16"	1/8"	DYN-93339
Cylinder, Radiused End	SC-41	Double	3/32"	7/16"	1/8"	DYN-93340
Cylinder, Radiused End	SC-42	Double	1/8"	9/16"	1/8"	DYN-93341
Ball	SD-42	Double	1/8"	1/8"	1/8"	DYN-93342
Oval	SE-41	Double	1/8"	7/32"	1/8"	DYN-93343
Tree, Radiused End	SF-42	Double	1/8"	1/2"	1/8"	DYN-93344
Tree, Radiused End	SG-44	Double	1/8"	1/2"	1/8"	DYN-93345
Flame, Pointed End	SH-41	Double	1/8"	1/4"	1/8"	DYN-93346
Taper, Radiused End	SL-42	Double	1/8"	1/2"	1/8"	DYN-93347
14 Degree, Cone End	SM-42	Double	1/8"	7/16"	1/8"	DYN-93348
10 Degree, Inverted Cone	SN-42	Double	1/8"	3/16"	1/8"	DYN-93349
		CARB	IDE BURF	RS (1/4"	SHAN	K)
Burr Kit (8 Pieces)	All 1/4" Styles	Double	Various	Various	1/4"	DYN-93350
Cylinder	SA-1	Double	1/4"	5/8"	1/4"	DYN-93330
Cylinder	SA-3	Double	3/8"	3/4"	1/4"	DYN-93331
Cylinder, Radiused End	SC-1	Double	1/4"	5/8"	1/4"	DYN-93332
Cylinder, Radiused End	SC-3	Double	3/8"	3/4"	1/4"	DYN-93333
Ball	SD-3	Double	3/8"	5/16"	1/4"	DYN-93334
Oval	SE-3	Double	3/8"	5/8"	1/4"	DYN-93335

Tree, Radiused End

Taper, Radiused End

SF-3

SL-3

Double

Double

3/4"

1-1/16"

1/4"

1/4"

DYN-93336

DYN-93337

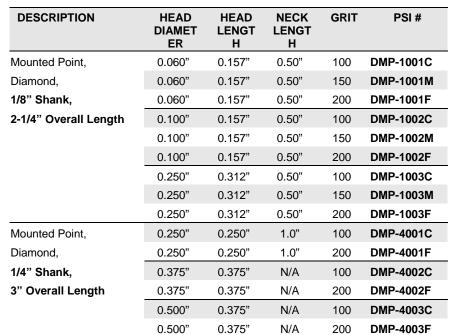
3/8"

3/8"

#### **DIAMOND MOUNTED POINTS**







#### **DIAMOND TAPERED HONES**





DESCRIPTION	SHANK DIAMET ER	ANGL E	GRIT	PSI#
Tapered Hone, Diamond,	1/8"	6°	150	DTH-1806
1/8" Shank,	1/8"	8°	150	DTH-1808
3" Overall Length	1/8"	12°	150	DTH-1812
Tapered Hone, Diamond,	1/4"	12°	100	DTH-2512C
1/4" Shank,	1/4"	12°	150	DTH-2512M
3" Overall Length	1/4"	14°	150	DTH-2514
	1/4"	16°	150	DTH-2516

#### **DIAMOND MICRO DRILLS**

DESCRIPTION	HEAD DIAMETER	HEAD LENGTH	DRILL DEPTH	GRIT	PSI#
Micro Drill, Diamond,	0.016"	0.062"	0.093"	200	DMD-1001
1/8" Shank	0.018"	0.062"	0.125"	200	DMD-1002
1" Overall Length	0.020"	0.062"	0.125"	200	DMD-1003
	0.025"	0.093"	0.156"	200	DMD-1004
	0.030"	0.093"	0.156"	150	DMD-1005
	0.035"	0.093"	0.187"	150	DMD-1006
NORTON	0.040"	0.125"	0.218"	150	DMD-1007
	0.045"	0.125"	0.218"	100	DMD-1008
	0.050"	0.125"	0.250"	100	DMD-1009
	0.060"	0.125"	0.312"	100	DMD-1010
	0.065"	0.125"	0.312"	100	DMD-1011



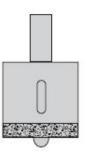
### **DIAMOND CORE DRILLS**

DESCRIPTION	OUTER DIAMETER	INNER DIAMETER	GRIT	PSI#
Core Drill, Diamond,	1/16"	0.023"	150	DCD-1001
2" Overall Length	3/32"	0.048"	150	DCD-1002
	1/8"	0.075"	150	DCD-1003
	5/32"	0.110"	150	DCD-1004
NORTON	3/16"	0.140"	100	DCD-1005
	1/4"	0.195"	100	DCD-1006
	5/16"	0.255"	100	DCD-1007
	3/8"	0.325"	100	DCD-1008
	1/2"	0.398"	80	DCD-1009



### **DIAMOND MOUNTED CORE DRILLS**

DESCRIPTION	OUTER DIAMETER	PILOT DIAMETER	GRIT	PSI#
Mounted Core Drill, Diamond,	1/2"	1/8"	40	DCD-1101
<i>NDRTDN </i> 8" Wrap	3/4"	1/4"	40	DCD-1102
3/8" Shank Diameter	1"	1/4"	40	DCD-1103
3.45" Overall Length	1-1/4"	1/4"	40	DCD-1104
	1-1/2"	1/4"	40	DCD-1105

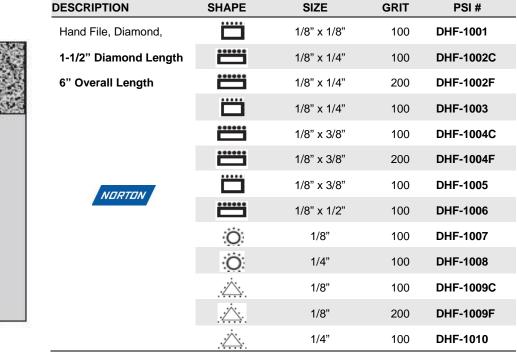


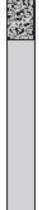
Pilots are removable.

#### **DIAMOND MACHINE FILES**

DESCRIPTION	SHAPE	SIZE	GRIT	PSI#
Machine File, Diamond,		0.020" x 0.125"	100	DMF-1001
5/8" Diamond Length		0.030" x 0.125"	100	DMF-1002
1/8" Shank Diameter		0.040" x 0.125"	100	DMF-1003
2" Overall Length		0.120" x 0.040"	100	DMF-1004
	•••••	0.157" x 0.040"	100	DMF-1005
		0.203" x 0.078"	100	DMF-1006
		0.120" x 0.040"	100	DMF-1007
		0.098" x 0.196"	100	DMF-1008
		0.120" x 0.250"	100	DMF-1009
	. <u>.</u>	0.078 side	100	DMF-1010
NORTON		0.127 side	100	DMF-1011
	. <del>.</del>	0.157 side	100	DMF-1012
	Ö	0.042 diameter	100	DMF-1013
	O.	0.080 diameter	100	DMF-1014
	Ö	0.127 diameter	100	DMF-1015
	Ö	0.157 diameter	100	DMF-1016
		0.060 radius	100	DMF-1017
		0.078 radius	100	DMF-1018

#### **DIAMOND HAND FILES**



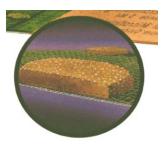


### **DIAMOND NEEDLE FILES**

DESCRIPTION	SHAPE	SIZE	GRIT	PSI#
Needle File, Diamond,		0.400" x 0.100"	100	DNF-1001C
4-1/4" Diamond Length		0.400" x 0.100"	200	DNF-1001F
8-1/2" Overall Length		0.450" x 0.150"	100	DNF-1002C
		0.485" x 0.150"	200	DNF-1002F
Needle File, Diamond,		0.055" x 0.190"	100	DNF-1101
2-3/4" Diamond Length		0.075" x 0.210"	100	DNF-1102
5-3/4" Overall Length	. <del>;</del>	0.145" x 0.145"	100	DNF-1103
Handle Included		0.100" x 0.100"	100	DNF-1104
NORTON	Ö:	0.120" diameter	100	DNF-1105
NEKTEN	<i>:</i>	0.055" x 0.190"	100	DNF-1106
Needle File, Diamond,	0	0.150" x 0.105"	200	DNF-1201
3" Diamond Length		0.218" x 0.072"	200	DNF-1202
5-1/2" Overall Length		0.205" x 0.058"	200	DNF-1203
Handle Included		0.096" x 0.096"	200	DNF-1204
	.÷	0.138" x 0.138"	200	DNF-1205
NORTON	:Ö:	0.118" diameter	200	DNF-1206
	$\circ$	0.197" x 0.088"	200	DNF-1207
		0.205" x 0.067"	200	DNF-1208



#### **FLEXIBLE DIAMOND**



PSI Flexible Diamond Products. manufactured by the 3M Company, are innovative the most available products for grinding and finishing extremely hard and tough materials. The flexible diamond technology is a precision micron grading

system, consisting of diamond particles anchored in electroplated nickel (Ni) pellets, that provides precise cutting and uniform surfaces. Its ability to polish the most difficult materials quickly makes Flexible Diamond Products a necessity for grinding and polishing ceramic, glass, stone, carbide, composites, exotic alloys and other hard to grind materials. The products are offered in a full range of grades for grinding and finishing.

PSI Flexible Diamond Products are available in 6 forms, 6 micron grades, a variety of backings, and all share a color coded system for easy grade identification. The forms available are Bands, Belts, Discs, Files, Hand Pads, and Sheets

Diamond bands are used for many different applications and are available in 1/2", 3/4",1", and 2" diameters and 1" in length. Ask PSI about the band holders.

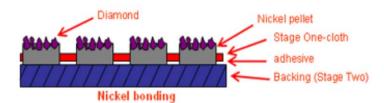
Flexible Diamond Belts have the durability and aggressiveness of diamond on backings that range from very flexible to heavy duty. Flexible Diamond belts are available in 1/2" to 15" wide and 9" to 200" in length.

Flexible Diamond Discs have a variety of sizes and backings to suit your needs. Most disc sizes are available with a Plain (PB), Pressure Sensitive Adhesive (PSA), QRS (Hook & Loop), or Magnetic backing. Roloc discs are available in 1" to 3" diameter. Some applications are available with a Center Water Feed application as well. PSI also stocks all applicable back-up pads for a variety of tools.

Color coded Diamond Files have the durability and aggressiveness of diamond on a high strength, plastic holder in 4 different shapes and sizes. Diamond files are ideal for hand work on small, difficult-to-grind materials, and areas that are hard to reach with conventional tools.

The color coded Hand Pads have the durability and aggressiveness of diamond on a high strength, flexible 2.25" x 3.75" pad. Diamond hand pads are used for applications such as hand finishing ceramics, composites, quartz, stone, and plastics.





Flexible Diamond Sheets are available in a number of sizes. Backing configurations include Plain, Pressure Sensitive Adhesive (PSA), QRS (Hook & Loop), and Very Flexible.

The learning curve of Flexible Diamond products is somewhat steep, but the rewards are dramatic. Difficult materials can be processed in a few minutes. Using Flexible Diamond Products with a liquid coolant will prolong the life of the product and obtain a more stable surface finish.

AVAILABLE FLEXIBLE DIAMOND GRADES						
Color	Color Micron Grit					
Green	250 μ	60				
Black	125 µ	120				
Red	74 µ	200				
Yellow	40 μ	320				
White	20 μ	500				
Blue	10 µ	1200				

### 3M FLEXIBLE DIAMOND HAND PADS

DESCRIPTION	MICRON	GRIT	PSI#
2¼" x 3¾" (57mm x 95mm),	250	60	HP-7-GREEN-250M
1" (25mm) Thick,	125	120	HP-7-BLACK-125M
Metal Bond	74	200	HP-7-RED-74M
	40	320	HP-7-YELLOW-40M
284	20	500	HP-7-WHITE-20M
311	10	1200	HP-7-BLUE-10M
Resin Bond	30	400	HP-7-YELLOW-30R
	10	1200	HP-7-BLUE-10R



### **HAND FILES**

DESCRIPTION	MICRON	GRIT	PSI#
1½" x ¾" (38mm x 19mm),	125	120	F1-BLACK-125M
Metal Bond, Flat	74	200	F1-RED-74M
	40	320	F1-YELLOW-40M
	20	500	F1-WHITE-20M
1¾" x ½" (44mm x 13mm),	125	120	F2-BLACK-125M
Metal Bond, Flat	74	200	F2-RED-74M
	40	320	F2-YELLOW-40M
	20	500	F2-WHITE-20M
1¾" x ½" (44mm x 13mm),	125	120	F3-BLACK-125M
Metal Bond, Half Round	74	200	F3-RED-74M
2½" x ¼" (63mm x 6mm),	125	120	F4-BLACK-125M
Metal Bond, Flat	74	200	F4-RED-74M



### 3M FLEXIBLE DIAMOND PLAIN BACK SHEETS



DESCRIPTION	MICRON	GRIT	PSI#
3" x 6" (76mm x 152mm),	250	60	SPB-3x6-250M
Plain Back,	125	120	SPB-3x6-125M
Metal Bond	74	200	SPB-3x6-74M
	40	320	SPB-3x6-40M
<b>3M</b>	20	500	SPB-3x6-20M
	10	1200	SPB-3x6-10M

M a Many other sizes available. Please see <a href="www.psidragon.com">www.psidragon.com</a> or call for information.

#### PRESSURE SENSITIVE ADHESIVE SHEETS



DESCRIPTION	MICRON	GRIT	PSI#
3" x 6" (76mm x 152mm),	250	60	SPS-3x6-250M
PSA Back,	125	120	SPS-3x6-125M
Metal Bond	74	200	SPS-3x6-74M
	40	320	SPS-3x6-40M
<b>3M</b>	20	500	SPS-3x6-20M
	10	1200	SPS-3x6-10M

Many other sizes available. Please see <a href="www.psidragon.com">www.psidragon.com</a> or call for information.

### QUICK RELEASE SYSTEM (HOOK & LOOP) SHEETS



DESCRIPTION	MICRON	GRIT	PSI#
2 ¾" x 5" (70mm x 127mm),	250	60	SQ-2.75x5-250M
QRS Back,	125	120	SQ-2.75x5-125M
Metal Bond	74	200	SQ-2.75x5-74M
	40	320	SQ-2.75x5-40M
<b>3M</b>	20	500	SQ-2.75x5-20M
	10	1200	SQ-2.75x5-10M

Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

### 3M FLEXIBLE DIAMOND SMALL BELTS

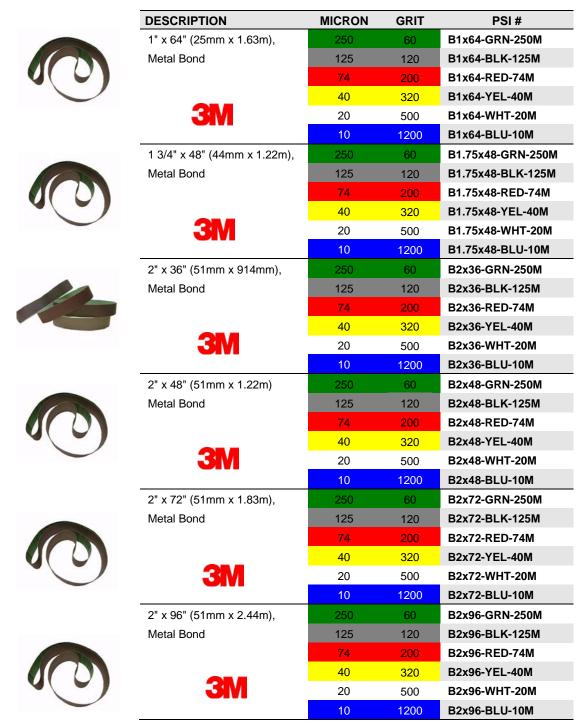
DESCRIPTION	MICRON	GRIT	PSI#
1/2" x 18" (13mm x 457mm),	250	60	B1/2x18-GRN-250M
Metal Bond	125	120	B1/2x18-BLK-125M
	74	200	B1/2x18-RED-74M
	40	320	B1/2x18-YEL-40M
<b>3M</b>	20	500	B1/2x18-WHT-20M
	10	1200	B1/2x18-BLU-10M
1/2" x 24" (13mm x 609mm),	250	60	B1/2x24-GRN-250M
Metal Bond	125	120	B1/2x24-BLK-125M
	74	200	B1/2x24-RED-74M
	40	320	B1/2x24-YEL-40M
<b>3M</b>	20	500	B1/2x24-WHT-20M
	10	1200	B1/2x24-BLU-10M
3/4" x 18" (19mm x 457mm),	250	60	B3/4x18-GRN-250M
Metal Bond	125	120	B3/4x18-BLK-125M
	74	200	B3/4x18-RED-74M
	40	320	B3/4x18-YEL-40M
3M	20	500	B3/4x18-WHT-20M
<del></del>	10	1200	B3/4x18-BLU-10M

#### **LARGE BELTS**

DESCRIPTION	MICRON	GRIT	PSI#	
1" x 30" (25mm x 762mm),	250	60	B1x30-GRN-250M	
Metal Bond	125	120	B1x30-BLK-125M	
	74	200	B1x30-RED-74M	
<b>3M</b>	40	320	B1x30-YEL-40M	0(0)
	20	500	B1x30-WHT-20M	
	10	1200	B1x30-BLU-10M	
1 1/8" x 21" (31mm x 534mm),	250	60	B1.12x21-GRN-250M	
Metal Bond	125	120	B1.12x21-BLK-125M	
	74	200	B1.12x21-RED-74M	
	40	320	B1.12x21-YEL-40M	
3M	20	500	B1.12x21-WHT-20M	
	10	1200	B1.12x21-BLU-10M	

Many other sizes available. Please see  $\underline{\text{www.psidragon.com}}$  or call for information.

### 3M FLEXIBLE DIAMOND LARGE BELTS (continued)



Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

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### 3M FLEXIBLE DIAMOND BANDS

DESCRIPTION	MICRON	GRIT	PSI#	
½" x 1" (13mm x 25mm),	250	60	BND-1/2x1-250M	
ID x Length,	125	120	BND-1/2x1-125M	
Metal Bond	74	200	BND-1/2x1-74M	
	40	320	BND-1/2x1-40M	19,0
<b>3M</b>	20	500	BND-1/2x1-20M	
	10	1200	BND-1/2x1-10M	
3/4" x 1" (19mm x 25mm),	250	60	BND-3/4x1-250M	
ID x Length,	125	120	BND-3/4x1-125M	
Metal Bond	74	200	BND-3/4x1-74M	
<b>3M</b>	40	320	BND-3/4x1-40M	0770
SIVI	20	500	BND-3/4x1-20M	
	10	1200	BND-3/4x1-10M	
1" x 1" (25mm x 25mm),	250	60	BND-1x1-250M	
ID x Length,	125	120	BND-1x1-125M	
Metal Bond	74	200	BND-1x1-74M	
	40	320	BND-1x1-40M	
<b>3M</b>	20	500	BND-1x1-20M	0
	10	1200	BND-1x1-10M	
2" x 1" (51mm x 25mm),	250	60	BND-2x1-250M	
ID x Length,	125	120	BND-2x1-125M	
Metal Bond	74	200	BND-2x1-74M	
284	40	320	BND-2x1-40M	- Chr
SIVI	20	500	BND-2x1-20M	
	10	1200	BND-2x1-10M	

### **BAND HOLDERS**

DESCRIPTION	PSI#
½" x 1" (13mm x 25mm)	BND-HLDR-1/2x1
3/4" x 1" (19mm x 25mm)	BND-HLDR-3/4x1
1" x 1" (25mm x 25mm)	BND-HLDR-1x1
2" x 1" (51mm x 25mm)	BND-HLDR-2x1



# 3M FLEXIBLE DIAMOND QUICK RELEASE SYSTEM (HOOK & LOOP) DISCS $1", 1\frac{1}{2}", 2"$



DESCRIPTION	MICRON	GRIT	PSI#
1" (25mm), QRS,	250	60	DQ-1-GRN-250M
Metal Bond	125	120	DQ-1-BLK-125M
	74	200	DQ-1-RED-74M
<b>3M</b>	40	320	DQ-1-YEL-40M
	20	500	DQ-1-WHT-20M
	10	1200	DQ-1-BLU-10M
1½" (38mm), QRS,	250	60	DQ-1.5-GRN-250M
Metal Bond	125	120	DQ-1.5-BLK-125M
	74	200	DQ-1.5-RED-74M
<b>3M</b>	40	320	DQ-1.5-YEL-40M
SIVI	20	500	DQ-1.5-WHT-20M
	10	1200	DQ-1.5-BLU-10M
2" (51mm), QRS,	250	60	DQ-2-GRN-250M
Metal Bond	125	120	DQ-2-BLK-125M
	74	200	DQ-2-RED-74M
3M	40	320	DQ-2-YEL-40M
	20	500	DQ-2-WHT-20M
	10	1200	DQ-2-BLU-10M





DESCRIPTION		PSI#
QRS Roloc Disc Pad	1" (25mm)	DQ-1-ROLOC-PAD
	1½" (38mm)	DQ-1.5-ROLOC-PAD
	2" (51mm)	DQ-2-ROLOC-PAD
Roloc Disc Pad,	1" (25mm)	DR-1-MED-1/4S
1/4" Shaft Included	1½" (38mm)	DR-1.5-MED-1/4S
	2" (51mm)	DR-2-MED-1/4S
Roloc Disc Pad Shaft, ¼" OD, 20 threads/inch		DR-SHAFT-1/4-20
Adapter, 5/8"-11 Internal to 1/4"-20 External Thread		DR5/8-11:1/4-20



DESCRIPTION	SIZE	PSI#
Set of QRS with Roloc Pad	1" (25mm)	DQ-1-ROLOC-SET
<u> </u>	1½" (38mm)	DQ-1.5-ROLOC-SET

Roloc Set includes 6 discs (1 each of 250,125,74,40,20,10 micron), 1 QRS pad, 1 Roloc pad, 1 shaft. Pencil Kit includes 15 QRS Discs (3 each of 125,74,40,20,10 micron), 1 Hook-It Pencil.

QRS = Quick Release System (Hook & Loop)

### 3M FLEXIBLE DIAMOND QUICK RELEASE SYSTEM (HOOK & LOOP) DISCS 3", 4", 5"

DESCRIPTION	MICRON	GRIT	PSI#
3" x 1" (76mm x 25mm),	250	60	DQ-3x1-GRN-250M
QRS, Metal Bond	125	120	DQ-3x1-BLK-125M
<b>3M</b>	74	200	DQ-3x1-RED-74M
	40	320	DQ-3x1-YEL-40M
	20	500	DQ-3x1-WHT-20M
	10	1200	DQ-3x1-BLU-10M



DESCRIPTION	MICRON	GRIT	PSI#
4" x 1" (102mm x 25mm),	250	60	DQ-4x1-GRN-250M
QRS, Metal Bond	125	120	DQ-4x1-BLK-125M
	74	200	DQ-4x1-RED-74M
<b>3M</b>	40	320	DQ-4x1-YEL-40M
	20	500	DQ-4x1-WHT-20M
	10	1200	DQ-4x1-BLU-10M
5" x 1" (127mm x 25mm),	250	60	DQ-5x1-GRN-250M
QRS, Metal Bond	125	120	DQ-5x1-BLK-125M
<b>3M</b>	74	200	DQ-5x1-RED-74M
	40	320	DQ-5x1-YEL-40M
	20	500	DQ-5x1-WHT-20M
	10	1200	DQ-5x1-BLU-10M



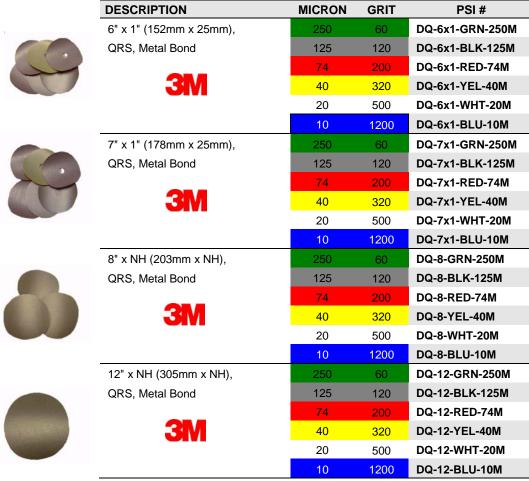


DESCRIPTION	SIZE	PSI#
Hook-It Disc Pad,	3" x %" (76mm x 16mm)	DQ-3x1-CWF-PAD
Center Water Feed	4" x %" (102mm x 16mm)	DQ-4x1-CWF-PAD
	5" x 5/8" (127mm x 16mm)	DQ-5x1-CWF-PAD



QRS = Quick Release System (Hook & Loop)

### 3M FLEXIBLE DIAMOND QUICK RELEASE SYSTEM (HOOK & LOOP) DISCS 6", 7", 8", 12"



QRS = Quick Release System (Hook & Loop)



DESCRIPTION	SIZE	PSI#
Hook-it Disc Pad,	6" x %" (152mm x 16mm)	DQ-6x1-CWF-PAD
Center Water Feed	7" x %" (178mm x 16mm)	DQ-7x1-CWF-PAD
	8" x %" (203mm x 16mm)	DQ-8x1-CWF-PAD

N H = No Hole

### **3M FLEXIBLE DIAMOND** ROLOC DISCS 1", 11/2", 2", 3"

DESCRIPTION	MICRON	GRIT	PSI#	
1" (25mm), Roloc,	250	60	DR-1-GRN-250M	
Metal Bond	125	120	DR-1-BLK-125M	
	74	200	DR-1-RED-74M	Solo
<b>3M</b>	40	320	DR-1-YEL-40M	
	20	500	DR-1-WHT-20M	
	10	1200	DR-1-BLU-10M	
1½" (38mm), Roloc,	250	60	DR-1.5-GRN-250M	
Metal Bond	125	120	DR-1.5-BLK-125M	
	74	200	DR-1.5-RED-74M	2000
<b>3M</b>	40	320	DR-1.5-YEL-40M	
	20	500	DR-1.5-WHT-20M	
	10	1200	DR-1.5-BLU-10M	
2" (51mm), Roloc,	250	60	DR-2-GRN-250M	
Metal Bond	125	120	DR-2-BLK-125M	- 00
	74	200	DR-2-RED-74M	
<b>3M</b>	40	320	DR-2-YEL-40M	
	20	500	DR-2-WHT-20M	
	10	1200	DR-2-BLU-10M	
3" (76mm), Roloc,	250	60	DR-3-GRN-250M	
Metal Bond	125	120	DR-3-BLK-125M	
	74	200	DR-3-RED-74M	
3M	40	320	DR-3-YEL-40M	
	20	500	DR-3-WHT-20M	
	10	1200	DR-3-BLU-10M	

DESCRIPTION	SIZE	PSI#
Roloc Disc Pad,	1" (25mm)	DR-1-MED-1/4S
1/4" Shaft Included	1½" (38mm)	DR-1.5-MED-1/4S
	2" (51mm)	DR-2-MED-1/4S
	3" (76mm)	DR-3-MED-1/4S
Roloc Disc Pad Shaft, 1/4" OD,	c Pad Shaft, ¼" OD, 20 threads/inch	
Adapter, 5/8"-11 Internal to 1/4"-20 External Thread		DR5/8-11:1/4-20
Adapter, 5/8"-11 External to 1/	'4" Shaft	DR1/4S:5/8-11



### 3M FLEXIBLE DIAMOND PRESSURE SENSITIVE ADHESIVE BACK DISCS

1", 11/2", 2", 3", 4"

	DESCRIPTION	MICRON	GRIT	PSI#
	1" x NH (25mm x NH),	250	60	DPS-1-GRN-250M
-0-00	PSA Back, Metal Bond	125	120	DPS-1-BLK-125M
		74	200	DPS-1-RED-74M
	<b>3M</b>	40	320	DPS-1-YEL-40M
		20	500	DPS-1-WHT-20M
		10	1200	DPS-1-BLU-10M
	1½" x NH (38mm x NH),	250	60	DPS-1.5-GRN-250
-	PSA Back, Metal Bond	125	120	DPS-1.5-BLK-125
	_	74	200	DPS-1.5-RED-74M
	<b>3M</b>	40	320	DPS-1.5-YEL-40M
		20	500	DPS-1.5-WHT-20M
		10	1200	DPS-1.5-BLU-10M
	2" x NH (51mm x NH),	250	60	DPS-2-GRN-250M
	PSA Back, Metal Bond	125	120	DPS-2-BLK-125M
		74	200	DPS-2-RED-74M
	3M	40	320	DPS-2-YEL-40M
		20	500	DPS-2-WHT-20M
		10	1200	DPS-2-BLU-10M
	3" x NH (76mm x NH),	250	60	DPS-3-GRN-250M
000	PSA Back, Metal Bond	125	120	DPS-3-BLK-125M
		74	200	DPS-3-RED-74M
	<b>3M</b>	40	320	DPS-3-YEL-40M
		20	500	DPS-3-WHT-20M
		10	1200	DPS-3-BLU-10M
	4" x NH (102mm x NH),	250	60	DPS-4-GRN-250M
	PSA Back, Metal Bond	125	120	DPS-4-BLK-125M
		74	200	DPS-4-RED-74M
	<b>3M</b>	40	320	DPS-4-YEL-40M
	- <del></del>	20	500	DPS-4-WHT-20M
		10	1200	DPS-4-BLU-10M



DESCRIPTION	SIZE	PSI#
PSA Disc Holder,	1" (25mm)	DPS-1-MED-1/4S
1/4" Shank	1½" (38mm)	DPS-1.5-MED-1/4S
	2" (51mm)	DPS-2-MED-1/4S
	3" (76mm)	DPS-3-MED-1/4S
	4" (102mm)	DPS-4-MED-1/4S

NH = No Hole PSA = Pressure Sensitive Adhesive

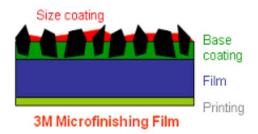
Many other sizes are available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

#### DIAMOND MICROFINISHING FILM

Diamond Microfinishing Film Abrasives (DMFF), from PSI, are a set of new tools available for hard-to-grind applications. DMFF Products, manufactured by the 3M Company, can replace traditional coarse abrasive films commonly used on superfinishing equipment. Designed especially for fast finish reduction on hard materials, DMFF rolls allow target finishes to be achieved in fewer passes for greater productivity. With DMFF, superfinishing times can be cut in half or more, compared to traditional diamond honing stones and coarser diamond lapping film.



Excellent finish is achieved by the precision grading system used to select the diamond abrasive particles for each grade. Classified by the more accurate micron grading system, particle size grading is held to much tighter tolerances than conventional abrasive products. This results in a higher density of the specified particle size available to do the grinding required. This controlled uniformity of particle size, combined with electrostatic coating of the polyester film backing, provides an unexcelled grinding product.



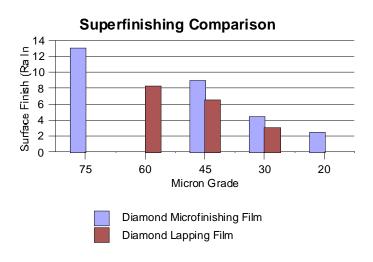
Product consistency is achieved and maintained through the grinding steps by the consistent 5 mil caliper of the dense, polyester backing. Unlike the traditional paper products, the abrasive particles cannot "recede" into the backing. This feature results in shorter grind times and longer life because the abrasive particles remain at the "cutting" interface. Shorter grind times mean less heat generation in the material being ground. Longer life means improved economics.

When a finer finish is required, Diamond Lapping Film can be used due to its ability to polish the most difficult hard and mixed hardness materials quickly, without pull-out and with incredible results.

DI	DMFF GRADE COMPARISON CHART					
Micron	Color	ANSI (U.S.)	FEPA (European)			
125	Orange	120	120			
74	Teal	200	200			
45	Yellow	280	320			
30	Green	400	600			
20	Beige	500	1000			
9	Blue	1200	2000			

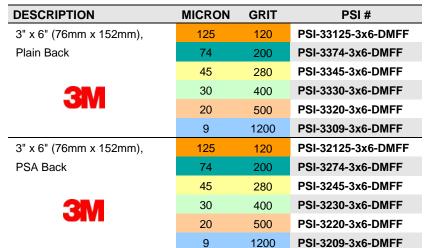
If your work can benefit from a more consistent finish combined with shorter grinding cycles and longer abrasive life, you should consider Diamond Microfinishing Film Abrasives from PSI for your superfinishing needs.

Test Conditions				
Machine	2" GEM Superfinisher	RPM/SFPM	210/250	
Film Speed	1"/min (30 on gauge)	Traverse Rate	12"/min	
Roller Hardness	65 Shore A	Workpiece	WC Co Cr Thermal Spray	
Roller Force	25 lbs/inch (30 psi on gauge)	Diameter	4.5"	



### 3M DIAMOND MICROFINISHING FILM 3" x 6" (76mm x 152mm) SHEETS







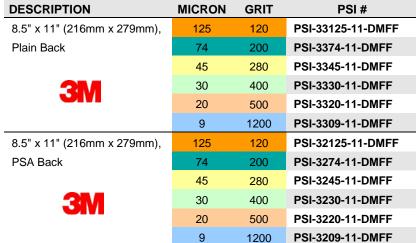
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PSA = Pressure Sensitive Adhesive

Many other sizes are available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

### 3M DIAMOND MICROFINISHING FILM 8.5" x 11" (216mm x 279mm) SHEETS





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PSA= Pressure Sensitive Adhesive

Many other sizes are available. Please see www.psidragon.com or call for information

P S A

### 3M DIAMOND MICROFINISHING FILM SMALL BELTS

DESCRIPTION	MICRON	GRIT	PSI#
½" x 18" (13mm x 457mm),	125	120	DMFFB-1/2x18-125
Resin Bond	74	200	DMFFB-1/2x18-74
	45	280	DMFFB-1/2x18-45
<b>3M</b>	30	400	DMFFB-1/2x18-30
	20	500	DMFFB-1/2x18-20
	9	1200	DMFFB-1/2x18-9
½" x 24" (13mm x 609mm),	125	120	DMFFB-1/2x24-125
Resin Bond	74	200	DMFFB-1/2x24-74
	45	280	DMFFB-1/2x24-45
3M	30	400	DMFFB-1/2x24-30
	20	500	DMFFB-1/2x24-20
	9	1200	DMFFB-1/2x24-9
3/4" x 18" (19mm x 457mm),	125	120	DMFFB-3/4x18-125
Resin Bond	74	200	DMFFB-3/4x18-74
	45	280	DMFFB-3/4x18-45
<b>3M</b>	30	400	DMFFB-3/4x18-30
	20	500	DMFFB-3/4x18-20
	9	1200	DMFFB-3/4x18-9







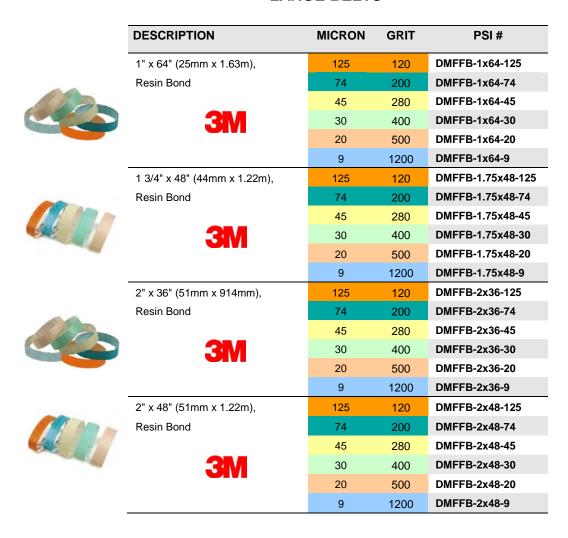
DESCRIPTION	MICRON	GRIT	PSI#
1" x 30" (25mm x 762mm),	125	120	DMFFB-1x30-125
Resin Bond	74	200	DMFFB-1x30-74
	45	280	DMFFB-1x30-45
<b>3M</b>	30	400	DMFFB-1x30-30
	20	500	DMFFB-1x30-20
	9	1200	DMFFB-1x30-9
1 1/8" x 21" (31mm x 534mm),	125	120	DMFFB-1.12x21-125
Resin Bond	74	200	DMFFB-1.12x21-74
	45	280	DMFFB-1.12x21-45
<b>3M</b>	30	400	DMFFB-1.12x21-30
	20	500	DMFFB-1.12x21-20
	9	1200	DMFFB-1.12x21-9

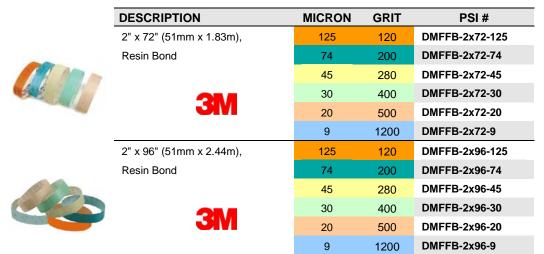




Many other sizes available. Please see  $\underline{\text{www.psidragon.com}}$  or call for information.

### 3M DIAMOND MICROFINISHING FILM LARGE BELTS





Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information

### 3M DIAMOND MICROFINISHING FILM SUPERFINISHING ROLLS

DESCRIPTION	MICRON	GRIT	PSI#
2" x 50' (51mm x 15.2m)	125	120	PSI-46125-2-DMFF
	74	200	PSI-4674-2-DMFF
	45	280	PSI-4645-2-DMFF
204	30	400	PSI-4630-2-DMFF
<b>3M</b>	20	500	PSI-4620-2-DMFF
	9	1200	PSI-4609-2-DMFF
3" x 50' (76mm x 15.2m)	125	120	PSI-46125-3-DMFF
	74	200	PSI-4674-3-DMFF
	45	280	PSI-4645-3-DMFF
	30	400	PSI-4630-3-DMFF
<b>3M</b>	20	500	PSI-4620-3-DMFF
	9	1200	PSI-4609-3-DMFF
4" x 50' (102mm x 15.2m)	125	120	PSI-46125-4-DMFF
	74	200	PSI-4674-4-DMFF
	45	280	PSI-4645-4-DMFF
284	30	400	PSI-4630-4-DMFF
<b>3M</b>	20	500	PSI-4620-4-DMFF
	9	1200	PSI-4609-4-DMFF
8" x 50' (203mm x 15.2m)	125	120	PSI-46125-8-DMFF
	74	200	PSI-4674-8-DMFF
	45	280	PSI-4645-8-DMFF
	30	400	PSI-4630-8-DMFF
<b>3M</b>	20	500	PSI-4620-8-DMFF
	9	1200	PSI-4609-8-DMFF
12" x 50' (305mm x 15.2m)	125	120	PSI-46125-DMFF
	74	200	PSI-4674-12-DMFF
	45	280	PSI-4645-12-DMFF
	30	400	PSI-4630-12-DMFF
<b>3M</b>	20	500	PSI-4620-12-DMFF
	9	1200	PSI-4609-12-DMFF







Many other sizes available. Please see  $\underline{www.psidragon.com}$  or call for information.

#### TRIZACT DIAMOND CLOTH BELTS



Trizact Diamond Cloth Belts, manufactured by the 3M Company, represents the "next generation" in abrasive technology. They combine the ability to predictably produce accurate part geometry

traditionally associated with bonded wheels with ease of use, speed and finish consistency of 3M abrasive belts. Plus, they typically require no dressing, resulting in less downtime and increased productivity.

Featuring 3M's exclusive microreplicated abrasive technology, Trizact Diamond Cloth Belts constructed with diamond-filled, three dimensional structures, which are bonded to a durable, waterproof cloth backing. As the Trizact structure wears, fresh abrasive is continually exposed to the workpiece, resulting in a more consistent, predictable cut throughout the life of the belt. In addition to making the grinding process less dependent on operator skill, it also allows the process to be automated more easily, further reducing labor costs and improving productivity.

DIAMOND TRIZACT AVAILABLE GRADES			
Micron Grit			
70	200		
40	320		
20	600		

Trizact Diamond Cloth Belts are designed for use on hard-to-grind materials, including: Thermal Spray Coatings, Ceramics, Carbides, Chilled Iron, and much more. The most common uses for the Trizact Diamond Cloth Belt are:

- Stripping old thermal spray coatings
- Coarse grinding
- Medium grinding
- Fine grinding
- Initial polishing

By continually exposing fresh abrasive material to the workpiece, the Trizact Diamond Cloth belts effectively "dress themselves," resulting in consistent and efficient stock removal - without chatter - at low grinding forces throughout the life of the belt. Lower grinding force is also a critical consideration in the production of lightweight/thin-walled components, such as aircraft parts, where high grinding forces can cause deflection during grinding - resulting in parts that are out-of-spec.

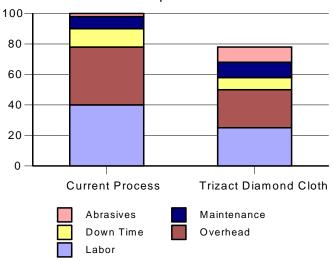
By significantly reducing processing time and eliminating downtime for dressing, switching to Trizact Diamond Cloth Belts can result in significant savings - in most cases, at least 20% per part.

Trizact Diamond Cloth Belts combine the speed, consistency, and ease of use of belts with the predictable dimensioning traditionally associated with bonded wheels.

3M has partnered with a company which can not only prove the process of the grinding wheel to belt conversion, they can also perform the conversion on your grinding wheel machine. To discuss how the Trizact Diamond Cloth belts can work for you or for information about grinding wheel-to-belt conversions, please contact the PSI Office.



Cost per Part



### 3M TRIZACT DIAMOND CLOTH SMALL BELTS

DESCRIPTION	MICRON	GRIT	PSI#
½" x 18" (13mm x 457mm),	70	200	BDT-1/2x18-70
Resin Bond	40	320	BDT-1/2x18-40
	20	600	BDT-1/2x18-20
½" x 24" (13mm x 609mm),	70	200	BDT-1/2x24-70
Resin Bond	40	320	BDT-1/2x24-40
	20	600	BDT-1/2x24-20
<sup>3</sup> / <sub>4</sub> " x 18" (19mm x 457mm),	70	200	BDT-3/4x18-70
Resin Bond	40	320	BDT-3/4x18-40
	20	600	BDT-3/4x18-20





Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

### 3M TRIZACT DIAMOND CLOTH LARGE BELTS

DESCRIPTION	MICRON	GRIT	PSI#
1" x 30" (25mm x 762mm),	70	200	BDT-1x30-70
Resin Bond	40	320	BDT-1x30-40
	20	600	BDT-1x30-20
1" x 64" (25mm x 1.63m),	70	200	BDT-1x64-70
Resin Bond	40	320	BDT-1x64-40
	20	600	BDT-1x64-20
1 1/8" x 21" (31mm x 534mm),	70	200	BDT-1.12x21-70
Resin Bond	40	320	BDT-1.12x21-40
	20	600	BDT-1.12x21-20
1 3/4" x 48" (44mm x 1.22m),	70	200	BDT-1.75x48-70
Resin Bond	40	320	BDT-1.75x48-40
	20	600	BDT-1.75x48-20
2" x 36" (51mm x 914mm),	70	200	BDT-2x36-70
Resin Bond	40	320	BDT-2x36-40
	20	600	BDT-2x36-20
2" x 48" (51mm x 1.22m),	70	200	BDT-2x48-70
Resin Bond	40	320	BDT-2x48-40
	20	600	BDT-2x48-20
2" x 72" (51mm x 2.29m),	70	200	BDT-2x72-70
Resin Bond	40	320	BDT-2x72-40
	20	600	BDT-2x72-20
2" x 96" (51mm x 3.35m),	70	200	BDT-2x96-70
Resin Bond	40	320	BDT-2x96-40
	20	600	BDT-2x96-20











Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

#### DIAMOND CLOTH DRY

PSI Diamond Cloth Dry, manufactured by the 3M Company, is a new resin bond alternative to the traditional metal bond flexible diamond product. Diamond Cloth Dry helps optimize cost-effectiveness in your finishing operations. These diamond products are used for finishing and dimensioning ceramics, carbides and hardcoated materials.



These products consist of micron-graded diamond particles encapsulated in a bonding matrix which is then bonded to a durable resin backing. Diamond Cloth Dry is available in belt and disc form.

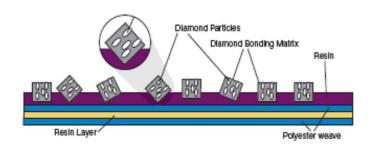
Diamond Cloth Dry is designed to provide longlasting cutting performance in a wide range of hardcoat finishing applications. The unique construction allows Diamond Cloth Dry to deliver outstanding consistency throughout the life of the belt, for improved control and fewer rejects. It provides optimal performance when run wet, but can also be run dry.

Compared to flexible metal bond diamond abrasives, Diamond Cloth Dry lasts longer, and delivers a faster, more consistent cut. It also provides a finer finish, with less chance of burnthrough - helping you improve productivity.

The water resistant backing performs well in both wet and dry applications. And the products' overall toughness makes them ideal for many hard-to finish materials such as Ceramics, Tungsten Carbide, Ceramic Coatings, Chrome Carbide, Composites, Zirconia and much more.

Diamond Cloth Dry products have the aggressiveness of metal bond flexible diamond products, but offer the convenience of using in dry applications without the loss of product life.

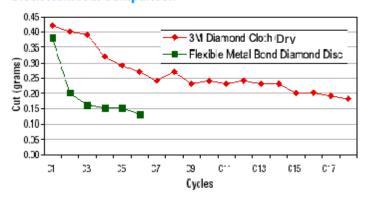
Diamond Cloth Dry Belts are available in most standard sizes and custom sizes are available. Diamond Cloth Dry Discs are available in 1.5", 2", and 3" discs.



If you have any questions regarding these products, or any consumable product from PSI, contact us and we will be pleased to discuss our Diamond Cloth Dry products with you.

In this series of production scale lab tests, 3M maintained cutting life over three times longer than the traditional diamond product!

### Stock Removal Comparison



Available Diamond Cloth 674W Grades			
Micron Mesh			
120 µ	120		
220 µ	70		

#### **3M DIAMOND CLOTH DRY SMALL BELTS**





DESCRIPTION	MICRON	MESH	PSI#
½" x 18" (13mm x 457mm),	120	120	DCDB-1/2x18-120
Resin Bond	70	220	DCDB-1/2x18-220
½" x 24" (13mm x 609mm),	120	120	DCDB-1/2x24-120
Resin Bond	70	220	DCDB-1/2x24-220
3/4" x 18" (19mm x 457mm),	120	120	DCDB-3/4x18-120
Resin Bond	70	220	DCDB-3/4x18-220

Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

#### **3M DIAMOND CLOTH DRY LARGE BELTS**









DESCRIPTION	MICRON	MESH	PSI#
1" x 30" (25mm x 762mm),	120	120	DCDB-1x30-120
Resin Bond	70	220	DCDB-1x30-220
1" x 64" (25mm x 1.63m),	120	120	DCDB-1x64-120
Resin Bond	70	220	DCDB-1x64-220
1 1/8" x 21" (29mm x 533mm),	120	120	DCDB-1.12x21-120
Resin Bond	70	220	DCDB-1.12x21-220
1 3/4" x 48" (44mm x 1.22m),	120	120	DCDB-1.75x48-120
Resin Bond	70	220	DCDB-1.75x48-220
2" x 36" (51mm x 915mm),	120	120	DCDB-2x36-120
Resin Bond	70	220	DCDB-2x36-220
2" x 48" (51mm x 1.22m),	120	120	DCDB-2x48-120
Resin Bond	70	220	DCDB-2x48-220
2" x 72" (51mm x 1.83m),	120	120	DCDB-2x72-120
Resin Bond	70	220	DCDB-2x72-220
2" x 96" (51mm x 2.44m),	120	120	DCDB-2x96-120
Resin Bond	70	220	DCDB-2x96-220

Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

### 3M DIAMOND CLOTH DRY ROLOC DISCS





DESCRIPTION	MICRON	MESH	PSI#
1" (25mm) Roloc,	120	120	DCDD-1-BLK-120
Resin Bond	70	220	DCDD-1-RED-220
1½" (38mm) Roloc,	120	120	DCDD-1.5-BLK-120
Resin Bond	70	220	DCDD-1.5-RED-220
2" (51mm) Roloc,	120	120	DCDD-2-BLK-120
Resin Bond	70	220	DCDD-2-RED-220
3" (76mm) Roloc,	120	120	DCDD-3-BLK-120
Resin Bond	70	220	DCDD-3-RED-220
4" (102mm) Roloc,	120	120	DCDD-4-BLK-120
Resin Bond	70	220	DCDD-4-RED-220



DESCRIPTION	SIZE	PSI#
Roloc Disc Pad,	1" (25mm)	DR-1-MED-1/4S
1/4" Shaft Included	1½" (38mm)	DR-1.5-MED-1/4S
	2" (51mm)	DR-2-MED-1/4S
	3" (76mm)	DR-3-MED-1/4S
	4" (102mm)	DR-4-MED-1/4S
Roloc Disc Pad Shaft, 1/4" OD, 20 threads	/inch	DR-SHAFT-1/4-20
Adapter, 5/8"-11 Internal to 1/4"-20 Exter	DR5/8-11:1/4-20	
Adapter, 5/8"-11 External to 1/4" Shaft		DR1/4S:5/8-11

#### **3M DIAMOND CLOTH (TRADITIONAL)**

PSI Diamond Cloth, manufactured by the 3M Company, consists of micron-graded diamond particles resin bonded to a durable, water-resistant, cloth backing. PSI Diamond Cloth looks like a traditional cloth-backed abrasive, but with diamond particles as the abrasive. This product is used for where material removal is not the principle concern, as it performs a polishing action rather than aggressive cutting.



PSI Diamond Cloth Products are redesigned with a higher diamond concentration and a longer-lasting resin system. Diamond Cloth and Diamond Polishing Cloth help optimize cost-effectiveness in your finishing operations.

Diamond Cloth is available in a wide range of grades and sizes. A choice of belts, discs, rolls, and sheets let you work with a wide variety of tools.

Compared to bonded wheels and conventional abrasives, Diamond Cloth can provide a superior finish with fewer steps which reduces process time and extends product life.

The water-resistant backing performs well in both wet and dry applications. And the products' overall toughness makes them ideal for many hard-to finish materials such as stones, coatings, ceramics, decorative glass, composites, rubber and so more.

Diamond Cloth Belts have the aggressiveness of diamond on soft cloth backings. Diamond Cloth belts are available in 1/4" to 12" wide and 9-7/16" to 183" in length.

Diamond Abrasive Cloth				
Micron	Mesh			
165 µ	100			
70 µ	220			
45 µ	400			
30 μ	600			
15 µ	1200			
9 μ	1800			
6 µ	3000			
3 μ	8000			
0.5 μ	50,000			

Diamond Cloth Discs have a variety of sizes and backings to suit your needs. Diamond Cloth Discs are available in 1/2" to 12" diameter with a Plain, QRS (Hook & Loop) or PSA (Pressure Sensitive Adhesive) backing.

Diamond Cloth Rolls have the same durable, high strength, flexible backing but designed for roll machines. Diamond Cloth Rolls are available in 1/4" to 12" widths.

Diamond Cloth Sheets are available in a number of sizes. Backing configurations include Plain, QRS (Hook & Loop) or PSA (Pressure Sensitive Adhesive).

Feel free to contact us to discuss our Diamond Cloth Products in relation to your application.



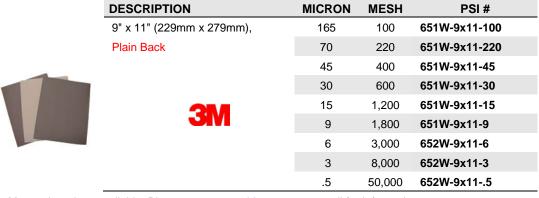
### 3M DIAMOND CLOTH (TRADITIONAL) SHEETS

3" x 6" (76mm x 152mm)

	DESCRIPTION	MICRON	MESH	PSI#
	3" x 6" (76mm x 152mm),	165	100	651W-3x6-100
	Plain Back	70	220	651W-3x6-220
		45	400	651W-3x6-45
		30	600	651W-3x6-30
		15	1,200	651W-3x6-15
		9	1,800	651W-3x6-9
		6	3,000	652W-3x6-6
		3	8,000	652W-3x6-3
		.5	50,000	652W-3x65
	3" x 6" (76mm x 152mm),	165	100	658W-3x6-100
	PSA Back	70	220	658W-3x6-220
		45	400	658W-3x6-45
	3M	30	600	658W-3x6-30
		15	1,200	658W-3x6-15
		9	1,800	658W-3x6-9
		6	3,000	656W-3x6-6
		3	8,000	656W-3x6-3
		.5	50,000	656W-3x65

Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

SHEETS 9" x 11" (229mm x 279mm)



Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

## 3M DIAMOND CLOTH (TRADITIONAL) BELTS

1" x 54" (25mm x 1.37m)

DESCRIPTION	MICRON	MESH	PSI#
1" x 54" (25mm x 1.37m)	165	100	651W-1x54-100
	70	220	651W-1x54-220
	45	400	651W-1x54-45
	30	600	651W-1x54-30
	15	1,200	651W-1x54-15
	9	1,800	651W-1x54-9
	6	3,000	652W-1x54-6
	3	8,000	652W-1x54-3
	.5	50,000	652W-1x545
1" x 60" (25mm x 1.52m)	165	100	651W-1x60-100
	70	220	651W-1x60-220
	45	400	651W-1x60-45
	30	600	651W-1x60-30
	15	1,200	651W-1x60-15
	9	1,800	651W-1x60-9
	6	3,000	652W-1x60-6
	3	8,000	652W-1x60-3
	.5	50,000	652W-1x605



Many other sizes available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

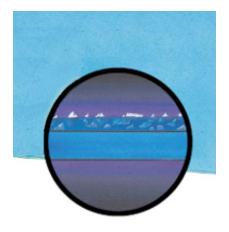
#### 3M DIAMOND LAPPING FILM

PSI Diamond Lapping Film, manufactured by the 3M Company, is the most innovative product available for metallography and lapping applications in many years. Originally developed for audio/video reading head polishing, it is now available in configurations to fit popular polishing equipment. Its ability to polish the most difficult hard and mixed hardness materials quickly, without pull-out and with incredible flatness, makes Diamond Lapping Film a product worth investigating for difficult material applications.



PSI Diamond Lapping Film is available in 3 specifications and 9 micron grades. All share the precision 3-mil polyester backing, color coded for easy grade identification. The three types differ in the method used to secure the diamonds particles to the polyester film backing.

PSI Diamond Lapping Film Type A is a single layer of the specified grade diamond particles resin bonded to the film backing. Type A is excellent for polishing applications where very little material removal is required. It will have a shorter life than the other two types, but gives a better finish grade for grade. Current applications include TEM sample preparation, printed circuit board failure analysis and aerospace composite materials.

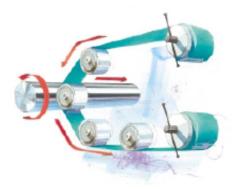


PSI Diamond Film Type B consists of diamond particles encapsulated in small soft ceramic beads, which are then resin coated to the polyester film backing. This results in a longer lasting, more aggressive product than the Type A product. As the ceramic beads wear, fresh diamond particles are exposed to work on the specimen surface. Successful applications include tungsten carbide specimen preparation, dental materials research, nickel base super alloys, high speed tool steel and others.

AVAILABLE DIAMOND FILM GRADES						
Color	Type A	Type B	Type P			
Amber			60 µ			
Amber			45 µ			
Green	30 µ					
Orange	15 µ					
Blue	9 μ	9 μ				
Brown	6 µ	6μ				
Pink	3 μ	3 μ				
Lavender	1 μ	1 μ				
Off White	.5 µ	.5 µ				
Gray Green	.1 μ					

PSI Diamond Lapping Film Type P shares characteristics with both Type A and Type B. Type P consists of diamond particles directly bonded to the polyester film with a very hard resin. This results in a product which works aggressively due to the large particle size, but because of the harder resin, exhibits a long life. Diamond Lapping Film Type P is used for fine grinding and flattening prior to use of the other products, if required.

The learning curve of Diamond Lapping Film is somewhat steep, but the rewards are dramatic. Difficult materials can be processed in minutes. Particle pull out is eliminated because the diamond cuts everything equally.



### 3M DIAMOND LAPPING FILM PLAIN BACK SHEETS

3" x 6" (76mm x 152mm)

DESCRIPTION	MICRON	COLOR	PSI#
3" x 6" (76mm x 152mm),	60	Amber	PSI-1660D-6P
Plain Back, Type P,	45	Amber	PSI-1645D-6P
Type A,	30	Green	PSI-1630D-6A
Direct Coating,	15	Orange	PSI-1615D-6A
Standard Concentration	9	Blue	PSI-1609D-6A
	6	Brown	PSI-1606D-6A
	3	Pink	PSI-1603D-6A
3M	1	Lavender	PSI-1601D-6A
	.5	Off White	PSI-16.5D-6A
	.1	Gray Green	PSI-16.1D-6A
3" x 6" (76mm x 152mm),	9	Blue	PSI-1609D-6
Plain Back, Type B,	6	Brown	PSI-1606D-6
Beaded Coating,	3	Pink	PSI-1603D-6
Standard Concentration	1	Lavender	PSI-1601D-6
	.5	Off White	PSI-16.5D-6



Many other sizes are available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

# 3M DIAMOND LAPPING FILM PRESSURE SENSITIVE ADHESIVE SHEETS 3" x 6" (76mm x 152mm)

DESCRIPTION	MICRON	COLOR	PSI#
3" x 6" (76mm x 152mm),	60	Amber	PSI-1560D-6P
PSA Back, Type P,	45	Amber	PSI-1545D-6P
Type A,	30	Green	PSI-1530D-6A
Direct Coating,	15	Orange	PSI-1515D-6A
Standard Concentration	9	Blue	PSI-1509D-6A
	6	Brown	PSI-1506D-6A
	3	Pink	PSI-1503D-6A
<b>3M</b>	1	Lavender	PSI-1501D-6A
	.5	Off White	PSI-15.5D-6A
	.1	Gray Green	PSI-15.1D-6A
3" x 6" (76mm x 152mm),	9	Blue	PSI-1509D-6
PSA Back, Type B,	6	Brown	PSI-1506D-6
Beaded Coating,	3	Pink	PSI-1503D-6
Standard Concentration	1	Lavender	PSI-1501D-6
	.5	Off White	PSI-15.5D-6



### 3M DIAMOND LAPPING FILM PLAIN BACK SHEETS

9" x 11" (228mm x 279mm)

DESCRIPTION	MICRON	COLOR	PSI#
9" x 11" (228mm x 279mm),	60	Amber	PSI-1660D-11P
Plain Back, Type P,	45	Amber	PSI-1645D-11P
Type A,	30	Green	PSI-1630D-11A
Direct Coating,	15	Orange	PSI-1615D-11A
Standard Concentration	9	Blue	PSI-1609D-11A
	6	Brown	PSI-1606D-11A
	3	Pink	PSI-1603D-11A
<b>3M</b>	1	Lavender	PSI-1601D-11A
	.5	Off White	PSI-16.5D-11A
	.1	Gray Green	PSI-16.1D-11A
9" x 11" (228mm x 279mm),	9	Blue	PSI-1609D-11
Plain Back, Type B,	6	Brown	PSI-1606D-11
Beaded Coating,	3	Pink	PSI-1603D-11
Standard Concentration	1	Lavender	PSI-1601D-11
	.5	Off White	PSI-16.5D-11

Many other sizes are available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.

# 3M DIAMOND LAPPING FILM PRESSURE SENSITIVE ADHESIVE SHEETS 9" x 11" (228mm x 279mm)

DESCRIPTION	MICRON	COLOR	PSI#
9" x 11" (228mm x 279mm),	60	Amber	PSI-1560D-11P
PSA Back, Type P,	45	Amber	PSI-1545D-11P
Type A,	30	Green	PSI-1530D-11A
Direct Coating,	15	Orange	PSI-1515D-11A
Standard Concentration	9	Blue	PSI-1509D-11A
	6	Brown	PSI-1506D-11A
284	3	Pink	PSI-1503D-11A
<b>3M</b>	1	Lavender	PSI-1501D-11A
	.5	Off White	PSI-15.5D-11A
	.1	Gray Green	PSI-15.1D-11A
9" x 11" (228mm x 279mm),	9	Blue	PSI-1509D-11
PSA Back, Type B,	6	Brown	PSI-1506D-11
Beaded Coating,	3	Pink	PSI-1503D-11
Standard Concentration	1	Lavender	PSI-1501D-11
	.5	Off White	PSI-15.5D-11

Many other sizes are available. Please see  $\underline{\text{www.psidragon.com}}$  or call for information.



### 3M DIAMOND LAPPING FILM SUPERFINISHING ROLLS

DESCRIPTION	MICRON	COLOR	PSI#
2" x 50' (51mm x 15.2m)	60	Amber	PSI-1260D-2
	45	Amber	PSI-1245D-2
	30	Green	PSI-1230D-2
	15	Orange	PSI-1215D-2
	9	Blue	PSI-1209D-2
	6	Brown	PSI-1206D-2
<b>3M</b>	3	Pink	PSI-1203D-2
	1	Lavender	PSI-1201D-2
	.5	Off White	PSI-12.5D-2
	.1	Gray Green	PSI-12.1D-2
3" x 50' (76mm x 15.2m)	60	Amber	PSI-1260D-3
	45	Amber	PSI-1245D-3
	30	Green	PSI-1230D-3
	15	Orange	PSI-1215D-3
	9	Blue	PSI-1209D-3
	6	Brown	PSI-1206D-3
<b>3M</b>	3	Pink	PSI-1203D-3
	1	Lavender	PSI-1201D-3
	.5	Off White	PSI-12.5D-3
	.1	Gray Green	PSI-12.1D-3
4" x 50' (102mm x 15.2m)	60	Amber	PSI-1260D-4
	45	Amber	PSI-1245D-4
	30	Green	PSI-1230D-4
	15	Orange	PSI-1215D-4
	9	Blue	PSI-1209D-4
	6	Brown	PSI-1206D-4
<b>3M</b>	3	Pink	PSI-1203D-4
	1	Lavender	PSI-1201D-4
	.5	Off White	PSI-12.5D-4
	.1	Gray Green	PSI-12.1D-4
8" x 50' (203mm x 15.2m)	60	Amber	PSI-1260D-8
	45	Amber	PSI-1245D-8
	30	Green	PSI-1230D-8
	15	Orange	PSI-1215D-8
	9	Blue	PSI-1209D-8
	6	Brown	PSI-1206D-8
<b>3M</b>	3	Pink	PSI-1203D-8
	1	Lavender	PSI-1201D-8
	.5	Off White	PSI-12.5D-8
	.1	Gray Green	PSI-12.1D-8





# 3M DIAMOND LAPPING FILM SUPERFINISHING ROLLS (continued)

DESCRIPTION	MICRON	COLOR	PSI#
12" x 50' (305mm x 15.2m)	60	Amber	PSI-1260D-12
	45	Amber	PSI-1245D-12
	30	Green	PSI-1230D-12
	15	Orange	PSI-1215D-12
	9	Blue	PSI-1209D-12
	6	Brown	PSI-1206D-12
<b>3M</b>	3	Pink	PSI-1203D-12
	1	Lavender	PSI-1201D-12
	.5	Off White	PSI-12.5D-12
	.1	Gray Green	PSI-12.1D-12





#### LAPPING FILM

PSI Lapping Film, manufactured by the 3M Company, is available from PSI in 2 minerals, 11 micron grades and 2 backings. The precision 3 mil thick polyester substrate is color coded for easy grade identification. PSI packages all Lapping Film in re-sealable bags to help prevent product contamination. Lapping Film is available in a wide variety of sheets, discs, and rolls, designed to fit popular polishing equipment or for polishing by hand applications.



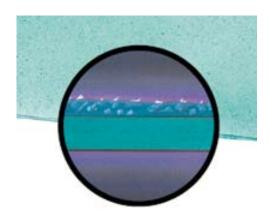
Silicon Carbide Lapping Film is the most aggressive non-diamond product. SiC Lapping Film will remove material rapidly, leaving a consistent scratch pattern easily removed with successive polishing steps. Because of the relatively deep scratches made by SiC Lapping Film, it is not used as a step following Aluminum Oxide Lapping Film. Grades available in SiC Lapping Film include 3, 5, 9, 15 and 30 micron.

Aluminum Oxide Lapping Film is less aggressive than SiC Lapping Film, but is available in more and finer grades. Al<sub>2</sub>O<sub>3</sub> Lapping Film is available in .05, .3, 1, 3, 5, 9, 12, 30, and 60 micron.

All PSI Lapping Film is available with either a Plain Back (PB) or with a Pressure Sensitive Adhesive (PSA) back. Which backing to use is determined by the polishing equipment available, or, in the case of polishing by hand, by user preference.

When polishing by hand, generally a glass plate is used as the substrate. A few drops of water (distilled and/or filtered) is used to "adhere" the film to the glass. Additional water is used on the Lapping Film surface as a lubricant. The part is moved over the surface in a "figure 8" or other patterns. Only relatively light pressure is required. The part should be rinsed thoroughly between Lapping Film grades.

When mechanical polishing is used, follow the manufacturer's instructions, with the following tips in mind. Be sure the polishing plate is clean before application of the Lapping Film discs. Any surface contamination will force the film out of plane, causing scratches. If the adhesive will not release easily after use, try a hot air gun (or hair dryer) to heat the film and plate. This will usually allow the film to release easily.



AVAILABLE LAPPING FILM GRADES			
Grade	SiC	Al <sub>2</sub> O <sub>3</sub>	
60 µ		White	
40 µ		Dark Blue	
30 μ	Dark Green	Green	
15 μ	Gray		
12 µ		Yellow	
9 μ	Gray	Blue	
5 µ	Gray	Brown	
3 µ	Gray	Pink	
1 μ		Light Green	
.3 µ		White	
.05 µ		Pale Yellow	

PSI maintains a large and varied inventory of Lapping Film. If you do not see the size, shape or mineral you require, please call us.

### 3M LAPPING FILM PLAIN BACK SHEETS 8½" x 11" (216mm x 279mm)

DESCRIPTION	MICRON	COLOR	PSI#
8.5" x 11"	60	White	PSI-1660-11
(216mm x 279mm),	40	Dark Blue	PSI-1640-11
Aluminum Oxide,	30	Green	PSI-1630-11
Plain Back	12	Yellow	PSI-1612-11
	9	Blue	PSI-1609-11
	5	Brown	PSI-1605-11
<b>3M</b>	3	Pink	PSI-1603-11
	1	Light Green	PSI-1601-11
	.3	White	PSI-16.3-11
	.05	Pale Yellow	PSI-16.05-11
8.5" x 11"	30	Dark Green	PSI-1630S-11
(216mm x 279mm),	15	Gray	PSI-1615S-11
Silicon Carbide,	9	Gray	PSI-1609S-11
Plain Back	5	Gray	PSI-1605S-11
	3	Gray	PSI-1603S-11

Many other sizes are available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.







# PRESSURE SENSITIVE ADHESIVE SHEETS 8½" x 11" (216mm x 279mm)

DESCRIPTION	MICRON	COLOR	PSI#
8.5" x 11"	40	Dark Blue	PSI-1540-11
(216mm x 279mm),	30	Green	PSI-1530-11
Aluminum Oxide,	12	Yellow	PSI-1512-11
PSA Back	9	Blue	PSI-1509-11
	3	Pink	PSI-1503-11
<b>3M</b>	1	Light Green	PSI-1501-11
	.3	White	PSI-15.3-11
	.05	Pale Yellow	PSI-15.05-11
8.5" x 11"	30	Dark Green	PSI-1530S-11
(216mm x 279mm),	15	Gray	PSI-1515S-11
Silicon Carbide,	9	Gray	PSI-1509S-11
PSA Back	5	Gray	PSI-1505S-11
	3	Gray	PSI-1503S-11

### 3M LAPPING FILM SUPERFINISHING ROLLS

DESCRIPTION	MICRON	COLOR	PSI #
3" x 150' (76mm x 45.7m), Aluminum Oxide	60	White	PSI-1260-3
Aluminum Oxide	40	Dark Blue	PSI-1240-3
	30	Green	PSI-1230-3
	12	Yellow	PSI-1212-3
<b>3M</b>	9	Blue	PSI-1209-3
	5	Brown	PSI-1205-3
	3	Pink	PSI-1203-3
	1	Light Green	PSI-1201-3
	.3	White	PSI-12.3-3
4" x 150' (102mm x 45.7m),	60	White	PSI-1260-4
Aluminum Oxide	40	Dark Blue	PSI-1240-4
	30	Green	PSI-1230-4
	12	Yellow	PSI-1212-4
<b>3M</b>	9	Blue	PSI-1209-4
	5	Brown	PSI-1205-4
	3	Pink	PSI-1203-4
	1	Light Green	PSI-1201-4
	.3	White	PSI-12.3-4
3" x 150' (203mm x 45.7m),	60	White	PSI-1260-8
Aluminum Oxide	40	Dark Blue	PSI-1240-8
	30	Green	PSI-1230-8
<b>3M</b>	12	Yellow	PSI-1212-8
	9	Blue	PSI-1209-8
	5	Brown	PSI-1205-8
	3	Pink	PSI-1203-8
	1	Light Green	PSI-1201-8
	.3	white	PSI-12.3-8
3" x 150' (76mm x 45.7m),	30	Dark Green	PSI-1230S-3
Silicon Carbide	15	Gray	PSI-1215S-3
3M	9	Gray	PSI-1209S-3
	5	Gray	PSI-1205S-3
	3	Gray	PSI-1203S-3
4" x 150' (102mm x 45.7m),	30	Dark Green	PSI-1230S-4
Silicon Carbide	15	Gray	PSI-1215S-4
014	9	Gray	PSI-1209S-4
<b>3M</b>	5	Gray	PSI-1205S-4
	3	Gray	PSI-1203S-4
3" x 150' (203mm x 45.7m),	30	Dark Green	PSI-1230S-8
Silicon Carbide	15	Gray	PSI-1215S-8
014	9	Gray	PSI-1209S-8
<b>3M</b>	5	Gray	PSI-1205S-8
	3	Gray	PSI-1203S-8

Many other sizes are available. Please see  $\underline{www.psidragon.com}$  or call for information.

#### **3M MICROFINISHING FILM**

Microfinishing Film Abrasives (MFA), manufactured by the 3M Company, can replace traditional abrasive papers commonly used. The unique features of this product enable the user to achieve the basic requirements of finish and flatness. With MFA, these goals will be reached with greater speed and more repeatable results.



MFA	MFA MICRON AVAILABLE GRADES			
Al <sub>2</sub> O <sub>3</sub> PB	Al <sub>2</sub> O <sub>3</sub> PSA	SiC PB	SiC PSA	
180	180			
150	150			
120	120			
100	100	100	100	
80	80	80	80	
60	60	60	60	
40	40	40	40	
30	30	30	30	
15	15	15	15	
9	9			
PB=Plain Back		PSA=Adh	esive Back	

Excellent finish is achieved by the precision grading system used to select abrasive particles for each grade. Classified by the more accurate micron grading system, particle size grading is held to much tighter tolerances than conventional abrasive products. This results in a higher density of the specified particle size available to do the grinding required. This controlled uniformity of particle size, combined with electrostatic coating of the polyester film backing, provides an unexcelled grinding product.

GRADE COMPARISON CHART			
Micron	ANSI(U.S.)	FEPA(European)	
180	80	80	
150	100	100	
120	120	120	
100	150	150	
80	180	180	
60	220	220	
40	320	360	
30	400	600	
15	800	1200	
9	1200	2000	

Product flatness is achieved and maintained through the grinding steps by the consistent 5 mil caliper of the dense, polyester backing. Unlike the traditional paper products, the abrasive particles cannot "recede" into the backing. This feature results in shorter grind times and longer life because the abrasive particles remain at the "cutting" interface. Shorter grind times mean less heat generation in the material being ground. Longer life means improved economics.

MFA products are available in both Aluminum Oxide  $(Al_2O_3)$  and Silicon Carbide (SiC). Aluminum Oxide is recommended for use on ferrous materials. Silicon Carbide product should be used on non-ferrous materials. Both abrasive types can be ordered from PSI in discs, rolls and sheets.



If your work can benefit from flatter, more consistent finishes combined with shorter grinding cycles and longer abrasive life, compared to traditional abrasives, you should consider Microfinishing Film Abrasives from PSI.

### **3M MICROFINISHING FILM PLAIN BACK SHEETS**

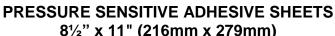
81/2" x 11" (216mm x 279mm)

DESCRIPTION	MICRON	PSI#
8.5" x 11" (216mm x 279mm),	180	PSI-33180-11
Aluminum Oxide,	150	PSI-33150-11
Plain Back	120	PSI-33120-11
	100	PSI-33100-11
	80	PSI-3380-11
	60	PSI-3360-11
<b>3M</b>	40	PSI-3340-11
	30	PSI-3330-11
	15	PSI-3315-11
	9	PSI-3309-11
8.5" x 11" (216mm x 279mm),	100	PSI-33100S-11
Silicon Carbide,	80	PSI-3380S-11
Plain Back	60	PSI-3360S-11
	40	PSI-3340S-11
<b>3M</b>	30	PSI-3330S-11
	15	PSI-3315S-11

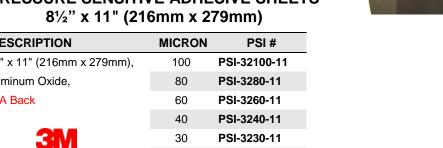
Many other sizes are available. Please see <a href="https://www.psidragon.com">www.psidragon.com</a> or call for information.







•		,
DESCRIPTION	MICRON	PSI#
8.5" x 11" (216mm x 279mm),	100	PSI-32100-11
Aluminum Oxide,	80	PSI-3280-11
PSA Back	60	PSI-3260-11
	40	PSI-3240-11
3M	30	PSI-3230-11
	15	PSI-3215-11
	9	PSI-3209-11
8.5" x 11" (216mm x 279mm),	100	PSI-32100S-11
Silicon Carbide,	80	PSI-3280S-11
PSA Back	60	PSI-3260S-11
	40	PSI-3240S-11
<b>3M</b>	30	PSI-3230S-11
	15	PSI-3215S-11



# 3M MICROFINISHING FILM SUPERFINISHING ROLLS

DESCRIPTION	MICRON	PSI#
2" x 150' (51mm x 45.7m),	100	PSI-46100-2
Aluminum Oxide	80	PSI-4680-2
	60	PSI-4660-2
<b>3M</b>	40	PSI-4640-2
	30	PSI-4630-2
	15	PSI-4615-2
	9	PSI-4609-2
3" x 150' (76mm x 45.7m),	100	PSI-46100-3
Aluminum Oxide	80	PSI-4680-3
	60	PSI-4660-3
<b>3M</b>	40	PSI-4640-3
	30	PSI-4630-3
	15	PSI-4615-3
	9	PSI-4609-3
4" X 150' (102mm x 45.7m),	100	PSI-46100-4
Aluminum Oxide	80	PSI-4680-4
	60	PSI-4660-4
<b>3M</b>	40	PSI-4640-4
	30	PSI-4630-4
	15	PSI-4615-4
	9	PSI-4609-4
8" x 150' (203mm x 45.7m),	100	PSI-46100-8
Aluminum Oxide	80	PSI-4680-8
	60	PSI-4660-8
<b>3M</b>	40	PSI-4640-8
	30	PSI-4630-8
	15	PSI-4615-8
	9	PSI-4609-8
2" x 150' (51mm x 45.7m),	60	PSI-4660S-2
Silicon Cardide	40	PSI-4640S-2
3M	30	PSI-4630S-2
	15	PSI-4615S-2
3" x 150' (76mm x 45.7m),	60	PSI-4660S-3
Silicon Carbide	40	PSI-4640S-3
<b>3M</b>	30	PSI-4630S-3
	15	PSI-4615S-3
4" x 150' (102mm x 45.7m),	60	PSI-4660S-4
Silicon Carbide	40	PSI-4640S-4
3M	30	PSI-4630S-4
<b>5</b> 111	15	PSI-4615S-4
8" x 150' (203mm x 45.7m),	60	PSI-4660S-8
Silicon Carbide	40	PSI-4640S-8
<b>3M</b>	30	PSI-4630S-8
	15	PSI-4615S-8



Many other sizes are available. Please see  $\underline{\text{www.psidragon.com}}$  or call for information.

#### **3M POLISHING PAPER**

Polishing Paper is a special applications product available from PSI. This wet or dry use material, manufactured by the 3M Company, is a resin bonded abrasive coated on a 7 mil thick non-woven synthetic backing. The abrasive minerals are closely graded and specified by the more accurate micron grading system. Polishing Paper is available with silicon carbide abrasive in 30 and 15 micron grade, and aluminum oxide in 9, 3, 2 and 1 micron. Because of the "soft" resin bonding system used on this product, it is not a long lasting product. Used in the proper applications, however, its excellent polishing properties will make it an economical alternative.



Polishing Paper is available in the usual forms common to popular metallurgical lab equipment. This includes 8" and 12" diameter discs, 3", 3 7/16", and 4" rolls, and 8.5" x 11" sheets. The discs and sheets are available with either a Plain Back (PB) or with Pressure Sensitive Adhesive (PSA) back.

GRADE COMPARISON CHART				
Micron	Backing	ANSI	FEPA	Color
30	Plain or PSA	400	600	Green
15	Plain or PSA	800	1200	Gray
9	Plain or PSA	1200	2000	Light Blue
3	Plain or PSA	1800	3000	Pink
2	Plain	1900	3500	Aqua
1	Plain or PSA	2000	4000	Pale Green

Polishing Paper performs well on a variety of materials, the common element being those with mixed hardness. One customer reports excellent results on titanium implants, ceramic coated and bonded to human bone. Another customer has had favorable results on a powder metallurgy product involving high speed steel powder on an aluminum substrate. The same customer has also used PSI Polishing Paper on an aluminum/bronze powder alloy on an aluminum substrate. Both customers report previous problems with particle pull-out when using conventional grinding/polishing processes.

Polishing Paper is supplied by other companies in our field only in the 15 micron silicon carbide product as "grit 600 soft cut" in discs, 4" rolls and 9"x11" sheets. If you have used this 600 grit soft cut successively in the one grade, a trial of the other grades available from PSI is warranted. PSI supplies Polishing Paper in every grade manufactured by 3M in all popular laboratory forms and backings.

Typical applications include:

- · CD/DVD repair
- · Metal and alloy finishing
- · Finishing jewelry and precious metals
- · Finishing plastic, polyurethane, wood, and solid surface composites
- Remove scratches and restore transparency to acrylic and polycarbonate

If your work involves relatively softer materials with mixed hardness portions, you should try PSI Polishing Paper. Contact PSI to discuss the appropriate specification to fit your requirements.



# 3M POLISHING PAPER PLAIN BACK SHEETS

8½" x 11" (216mm x 279mm)

DESCRIPTION	MICRON	COLOR	PSI#
8.5" x 11" (216mm x 279mm),	30	Green	PSI-3430S-11
Silicon Carbide, Plain Back	15	Gray	PSI-3415S-11
8.5" x 11" (216mm x 279mm),	9	Lt Blue	PSI-3409-11
Aluminum Oxide, Plain Back	3	Pink	PSI-3403-11
	2	Aqua	PSI-3402-11
	1	Pale Green	PSI-3401-11

Many other sizes are available. Please see <a href="www.psidragon.com">www.psidragon.com</a> or call for information.





# PRESSURE SENSITIVE ADHESIVE SHEETS 8½" x 11" (216mm x 279mm)



DESCRIPTION	MICRON	COLOR	PSI#
8.5" x 11" (216mm x 279mm),	30	Green	PSI-3530S-11
Silicon Carbide, PSA Back	15	Gray	PSI-3515S-11
8.5" x 11" (216mm x 279mm),	9	Lt Blue	PSI-3509-11
Aluminum Oxide, PSA Back	3	Pink	PSI-3503-11
	1	Pale Green	PSI-3501-11

#### DIAMOND COMPOUND AND SUSPENSION

PSI Diamond Compounds and Suspensions are used in the polishing operation on many materials. Manufactured to PSI specifications, all diamond powders used in PSI compounds and suspensions are graded to meet the stringent standards of both the American National Standards Institute (ANSI) and the Federation Europeenne Des Fabricants ales Produils Abrasics (FEPA). The virgin diamond powder particles are graded in a Micronizing Laboratory to the specified particle range utilizing fully automated, electronically monitored grading equipment, the specified particle size range may vary from as tight as 1 to .25 micron in the .1 micron compound to as large as 30 to 50 micron in the 45 micron compound.



Particle size distribution analysis is an integral part of the quality assurance program for all powders used in PSI Diamond Compound and Suspensions. A computerized particle analyzer is used to measure and record graphically the particle size distribution of all diamond powders used.

PSI offers the Diamond Compounds and the Diamond Suspensions with monocrystalline diamonds. Monocrystalline Diamond Powder is a product of high pressure, high temperature technology. The resulting product is single crystal in structure, blocky in shape and very strong. This blocky shape and high particle strength results in a diamond particle that "cuts" rapidly and consistently over a long polishing cycle.

All PSI Diamond Compounds and Suspensions are color coded for easy grade identification. Standard industrial use packaging is a 100gram jar for compounds and 64oz container for suspensions. The vehicle in which the diamond powders are carried is a mixture soluble in either oil or water based systems. This insures that PSI Diamond Compound will be compatible with solubility requirements in a variety of applications.

PSI Diamond Suspensions consist of a nonclogging formula which can be used where a drip or spray application is required.

To compliment PSI Diamond Compound, three Diamond Extenders are available in 2 sizes, quart and gallon. For most applications, the standard universally soluble product is most popular. Where there is a question of water reactivity, the oil soluble extender is the correct choice. For those who prefer the blue alcohol soluble product, it also is available.

Contact PSI by phone, fax or email to discuss your specific application.

COLOR/GRADE CHART				
Micron	Micron Color			
45 µ	Purple	30-50 μ		
30 μ	Mahogany	20-40 µ		
15 μ	Brown	12-22 µ		
9 μ	Red	8-12 µ		
6 µ	Yellow	4-8 µ		
3 µ	Green	2-4 µ		
1 μ	Blue	0-2 μ		
.5 µ	Turquoise	0-1 μ		
.25 µ	Gray	05 μ		
.1 μ	Charcoal	0.25 μ		

### **DIAMOND COMPOUND**

DESCRIPTION	MICRON	COLOR	PSI#
Rough Finish	45	Purple	PSI-545MC-100B
	30	Mahogany	PSI-530MC-100B
Middle Finish	15	Brown	PSI-515MC-100B
	9	Red	PSI-509MC-100B
Final Finish	6	Yellow	PSI-506MC-100B
	3	Green	PSI-503MC-100B
Ultimate Finish	1	Blue	PSI-501MC-100B
	.5	Turquoise	PSI-506MC-100B
	.25	Gray	PSI-500MC-100B
	.1	Charcoal	PSI-5.1MC-100B



### **DIAMOND EXTENDER**

DESCRIPTION	SIZE	COLOR	PSI#
Universally Soluble	1 qt (.95L)	Orange	PSI-542-1
	1 gal (3.8L)	Orange	PSI-542-4
Oil Soluble	1 qt (.95L)	Opaque	PSI-543-1
	1 gal (3.8L)	Opaque	PSI-543-4
Alcohol Base	1 qt (.95L)	Blue	PSI-544-1
	1 gal (3.8L)	Blue	PSI-544-4



### **DIAMOND SUSPENSION**

DESCRIPTION	MICRON	COLOR	PSI#
Monocrystalline Diamond,	45	Purple	PSI-545MC-64
Non-Clogging Formula,	30	Mahogany	PSI-530MC-64
64 oz (1.89L)	15	Brown	PSI-515MC-64
	9	Red	PSI-509MC-64
	6	Yellow	PSI-506MC-64
	3	Green	PSI-503MC-64
	1	Blue	PSI-501MC-64
	.5	Turquoise	PSI-5.5MC-64
	.25	Gray	PSI-500MC-64
	.1	Charcoal	PSI-5.1MC-64

Gallon and 16oz containers are available. Please see <a href="www.psidragon.com">www.psidragon.com</a> or call for information.

<sup>5</sup> gram and 18 gram syringes are available. Please see  $\underline{\text{www.psidragon.com}}$  or call for information.