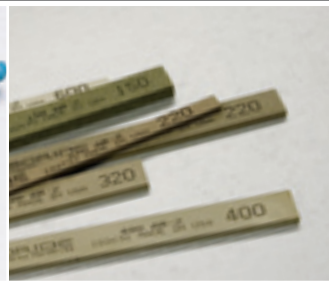
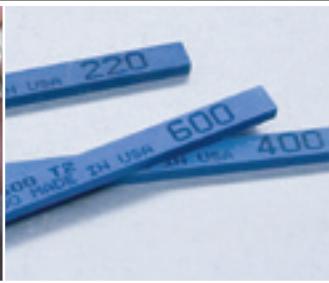




EDM Polishing Stones • General Purpose Stones • Detail Stones • Industrial Abrasives





Learning Customers' Needs Is Our Beginning

With this knowledge, we recommend specific products along with a systematic approach to satisfy those needs. Developing new products in response to our customers needs is a high priority.

Nearly 40 Years of Manufacturing Abrasive Products

BORIDE Engineered Abrasives possesses a wealth of experience and technology to create the necessary product performance and to provide technical support.

Excellent Product Quality and Lot-to-Lot Consistency

We manufacture utilizing current technology and using the best abrasive grain, bond components and other raw materials. Outstanding quality is achieved by careful attention to process details.

Deliveries Are Prompt and Consistently On Time

Orders are shipped the next day with few exceptions. Short lead times are maintained through an MRP system.

Pricing Is Competitive

We understand our customer's need for value at a fair price. Because we are an integrated and efficient producer, costs are kept low, enabling us to provide very competitive pricing.

Distribution Is Tailored to Each Market

We support a network of local distributors who maintain close contact with their customers.

EDM Polishing Stones		2
AM-8	Excellent ultrasonic stone, strong; holds shape	
AS-9	Great with profiler and hand stoning	
Orange EDM	Fast cutting action with consistent breakdown	
GOLD	Perfect all-around aluminum oxide stone	
General Purpose Stones (Aluminum Oxide)		3
AM-2	General purpose stone; soft; fast breakdown	
Die Stone	Slightly harder than AM-2	
AM-K	White aluminum oxide stone good for machined surfaces	
AS-H	White aluminum oxide stone softer than AM-K	
General Purpose Stones (Silicon Carbide)		4
CS	Fast-cutting black silicon carbide	
CS-M	Premium green silicon carbide, fast cutting, medium hardness	
CS-HD	Harder stone than CS-M, excellent for hardened steel, 47-63Rc	
Polishing Stone Kits	Mold stone formulations in a convenient sample kit	
Specialty Stones		5-6
PC	Premium polishing stone for final finish work	
T2	Excellent stone for stainless steel	
T4	Engineered for finishing aluminum and soft metals	
AO	Aggressive stone for general mill removal and EDM	
TH	Performs well on all types of tool steels	
900-F	Very soft stone for super-fine finishing	
Roughing Stones		6
Roughout	Softer stone, aggressive cutting, 80 - 220 grits	
Ruby	Extremely fast cutting stone	
Detail Stones		7
Ceramic Stones/Super Stones	Very strong, used for EDM removal in ribs and slots	
RIBSTONE®	High-tech diamond abrasive polishing tool	
CNB-80 & CNB-120	Extremely aggressive advanced composite fiber	
Diamond Products		8
Mold Makers Diamond Compound	Used for precision finishing of all types of molds and dies	
DIAMAX Diamond Compound	Offers a precise blend of man-made and natural diamond	
Diamond Files	Manufactured from the highest quality diamond	
Diamond Foil	Fast-cutting, flexible with adhesive backing	
Industrial Abrasives		9
Mounted Points	Designed specially for mold and die work	
Boron Carbide Dressing Stick	B4C dressing sticks are extremely wear resistant	
Dressing Sticks	Aluminum oxide sticks used to clean and dress wheels	
Sharpening Stones	Used for deburring, sharpening, and honing	
Coated Abrasives		10
Zip Strips & Tapered Blank Files	Pre-cut and ready to use coated abrasive strips	
Red Aluminum Oxide Paper	Strong coated abrasive papers providing exceptional finishes	
Red Silicon Carbide Paper		
PSA Discs and Holders	Long lasting and fast cutting durable discs with strong adhesive	
Accessories		11-12
Stone Holders	Specially designed for hand use and profilers	
BORI-LUBE 10	To clean, lubricate and prevent stone loading	
Mold Polish	Safely removes haze, plate-out, rust, oxidation and stains	
Miniature Brushes	Mandrel-mounted wire and hair brushes	
White Felt Bobs	Produces a high surface finish on all dies and molds	
Wood Sticks	For lapping and finishing by hand	

Refer to Item Price List for Sizes and Prices

AM-8 - Excellent Ultrasonic Stone; Strong; Holds Edge

AM-8 is designed for removing EDM scale on all types of mold and die steel. Additionally, it is an excellent tool for polishing sharp corners and small details either by hand or with the use of polishing machines. AM-8 works well with ultrasonic units. Most polishers prefer to use a lubricant.

Grits	100	120	150	180	220	280	320	400	600
-------	-----	-----	-----	-----	-----	-----	-----	-----	-----



AS-9 - Great With Profiler and Hand Stoning

Similar to the AM-8, the AS-9 is engineered for hand stoning EDM scale surfaces. It can be used with polishing machines, but the special formulation provides a fast, smooth cutting action during hand stoning. Use either with a lubricant or dry.

Grits	100	120	150	180	220	280	320	400	600
-------	-----	-----	-----	-----	-----	-----	-----	-----	-----



Orange EDM - Fast Cutting Action with Consistent Breakdown

Orange EDM can be used by hand, with a profiler or ultrasonic units. Designed as an excellent tool for fast EDM scale removal, Orange EDM holds its shape and provides consistent cutting.

Grits	120	180	220	320	400	600
-------	-----	-----	-----	-----	-----	-----



GOLD - A Perfect All-Around Aluminum Oxide Stone

Similar to the AO, it has excellent breakdown characteristics and retains its shape well. The GOLD is filled with a special lubricant, however, it is our recommendation to use lubricants with all grits; pre-soaking is not required. This stone works well on EDM and machined surfaces on all tool steels. The GOLD can be used by hand or in a reciprocating profiler.

Grits	120	150	180	220	280	320	400	500	550	600	800
JIS	120	150	180	240	320	400	600	800	1000	1200	1500





AM-2 - Our Most Popular General Purpose Stone; Soft, Fast Breakdown

AM-2 is an excellent all around finishing stone. AM-2 is engineered for hand polishing all types of mold and die steels, including SAE 1030 pre-heat treated P-20, H-13, S-7 and T-420. Soft action combined with the perfect breakdown of AM-2 also permits pre-finishing on non-ferrous metals such as aluminum, beryllium, kirksite and high chrome/nickel stainless steel. Some polishers obtain excellent results using water when finishing kirksite.

Grits	100	150	180	220	280	320	400	600	900
-------	-----	-----	-----	-----	-----	-----	-----	-----	-----



Die Stone - Slightly Harder Than AM-2

The Die Stone is engineered for use on all tool steels. It provides consistent breakdown and fast cutting action.

Grits	150	180	220	320	400	600
-------	-----	-----	-----	-----	-----	-----



AM-K - White Aluminum Oxide Stone Good for Machined Surfaces

AM-K is a white aluminum oxide stone of medium hardness that performs well on all types of mold steel. Generally, AM-K is used dry for rough forming and removal of machine marks. Lubricants are used for finer grits. Some polishers use the 400 and 600 grits for finishing plastic molds and blow molds.

Grits	100	150	180	220	320	400	600
-------	-----	-----	-----	-----	-----	-----	-----



AS-H - White Aluminum Oxide Stone Softer Than AM-K

AS-H is similar to AM-K but slightly softer. It conforms quickly to varied pre-shaped surfaces. We suggest always using lubricants with this stone. AS-H stones are more suitable for hand stoning.

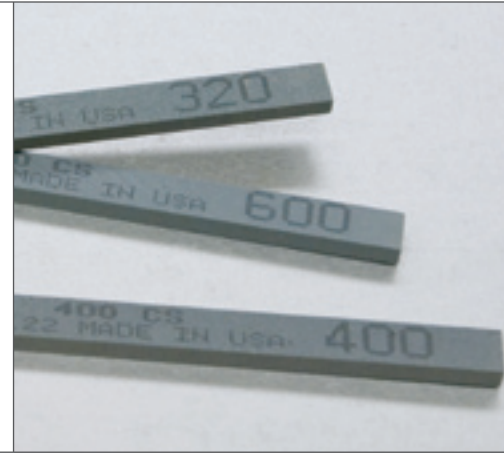
Grits	100	150	180	220	320	400	600
-------	-----	-----	-----	-----	-----	-----	-----



CS - Fast Cutting Black Silicon Carbide

CS is a soft stone designed to conform rapidly to a variety of details and is mostly used for hand polishing. It breaks down rapidly. CS stones are used on all tool steels as well as for roughing out some non-ferrous materials.

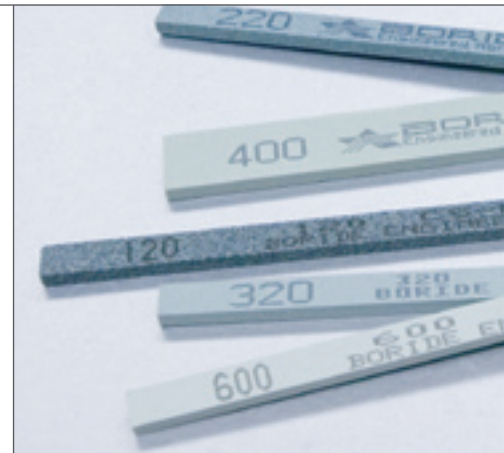
Grits	150	180	220	320	400	600
-------	-----	-----	-----	-----	-----	-----



CS-M - Premium Green Silicon Carbide; Fast Cutting; Medium Hardness

This premium green silicon carbide abrasive polishing stone has superb cutting abilities. A special bond makes CS-M non-loading with a medium soft hardness for excellent polishing. The sharp cutting edges of silicon carbide permit the use of this stone for finishing low tensile strength materials such as aluminum, cast iron, bronze and kirksite. Most polishers prefer to use a lubricant.

Grits	120	150	220	320	400	600
-------	-----	-----	-----	-----	-----	-----



CS-HD - Harder Stone Than CS-M; Excellent for Hardened Steel; 47-63Rc

Compared to CS or CS-M, the CS-HD is harder acting and slower to break down. This polishing stone can be used to polish even the hardest die and mold steels. Polishers claim excellent results with CS-HD finishing drawing dies, stamping dies and heat-treated die-cast dies ranging in hardness from 47 to 63Rc. Some mold makers also use CS-HD for removal of EDM.

Grits	120	150	220	320	400	600
-------	-----	-----	-----	-----	-----	-----



Polishing Stone Kits

We offer each of our mold stone formulations in a convenient kit for polishers who would like to sample a particular stone type. Each kit includes one stone of each grit in the 1/8 x 1/2 x 6" size.

Grits	150	220	320	400	600*
-------	-----	-----	-----	-----	------

*(GOLD kit contains 800 grit in place of 600)





PC - A Premier Stone for a Pristine Finish or Pre-Diamond Polishing

The PC (Polisher’s Choice) stone is made from premium select grain, premium bond and a proprietary treatment process. The PC reflects a pristine cut with exceptional surface quality, is a quick contouring finishing stone designed for rapid stock removal, and is an outstanding choice for metal finishes requiring a final diamond finish. The PC requires a lubricant and is well suited for use by hand or in a profiler.

Grits	150	220	320	400	600
-------	-----	-----	-----	-----	-----



T2 - Excellent Stone for Stainless Steel

This specialty treated medium-hard aluminum oxide stone cuts very fast and yet provides a silky, smooth finish. Even the most selective polishing “pro” will like T2 for high quality mold steel such as P-20, H-13 and 420 stainless. For a fast perfectly smooth finish, use the 320, 400 and 600 grits. Use a lubricant with T2.

Grits	150	220	320	400	600
-------	-----	-----	-----	-----	-----



T4 - Engineered for Finishing Aluminum and Soft Metals

T4 is a specially treated medium aluminum oxide stone that cuts fast and leaves an excellent finish. T4 is similar to T2 but breaks down faster. It works very well on aluminum, not scratching or tearing the surface. Use a lubricant with T4.

Grits	150	220	320	400	600
-------	-----	-----	-----	-----	-----



AO - Aggressive Stone for General Mill and EDM Removal

AO is a perfect all around aluminum oxide stone. It has excellent breakdown characteristics and yet retains its shape well, especially when polishing mold cavity details. Because the AO is filled with lubricant during the manufacturing process, it does not require lengthy pre-lubrication. 220 grit is an ideal “start up stone” for machined surfaces. The use of lubricant for all grit sizes is recommended. Grits 220 and 320 work well in removing EDM scale.

Grits	120	150	220	320	400	600
-------	-----	-----	-----	-----	-----	-----



TH - Performs Well on All Types of Tool Steels

The TH is made from premium grade aluminum oxide then specially treated to provide a load resistant, smooth cutting action. Our special TH formulation holds its shape, is an excellent stone choice for EDM surfaces and performs well on all types of tool steels.

Grits	150	220	320	400	600
-------	-----	-----	-----	-----	-----



900-F - Very Fine Stone for Super-Fine Finishing

This stone has super-fine structure and excellent breakdown properties for final finishing prior to mirror (diamond polish) finishing. The 900-F works especially well on P-20 mold steel with a hardness ranging from 29 to 32Rc. The 900-F is primarily used for hand finishing operations. Always use a lubricant with the stone.

Grits	900
-------	-----



Roughout Stones

Roughouts - Excellent for Roughing Large Molds and Dies

After the duplicating process has been completed on large dies and molds, Roughout stones are ideal for removing cutter marks. From soft to hard the Roughout stones enable rapid, aggressive stock removal. The RO-Med is an excellent Roughout for mold contours because of its fast breakdown. For detailing sharp corners and steps, the RO-Hard is recommended.

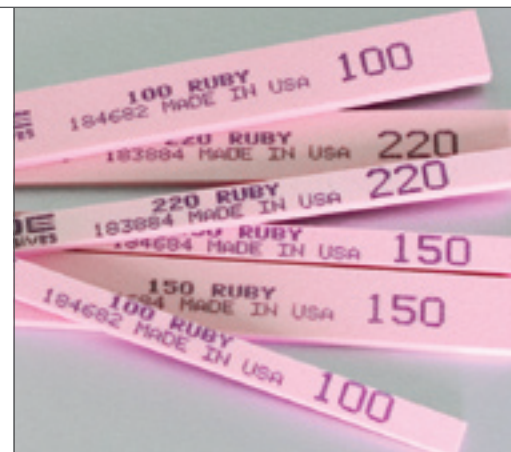
Grits	80	100	120	150	180
-------	----	-----	-----	-----	-----



Rubys - Fast Stock Removal

Ruby stones are extremely fast cutting and perform well on all tool steels. They provide sharp cutting action for fast stock removal. The Ruby stone's consistent breakdown allows the stone to be used dry without loading. Try the RB for fast stock removal on mold contours.

Grits	80	100	150	220
-------	----	-----	-----	-----





Ceramic Stone / Super Stone

The original Ceramic Stone / Super Stone used for fine detail polishing. The Ceramic Stone / Super Stone is extremely strong, thin for tight ribs and slots and excellent for EDM removal.



Ribstone® - The High-Tech Diamond Abrasive Polishing Tool

RIBSTONE® is manufactured from precision tapered composite materials, a bronze protective layer, and unique diamond abrasive. This combination produces a very strong, thin, abrasion resistant tool for polishing ribs and slots. RIBSTONE® is equipped with a diamond abrasive for fast and efficient material removal. This unique stone design is self-cleaning during use which allows RIBSTONE® to be used with or without lubricant. RIBSTONE® can be shaped using a diamond or conventional grinding wheel. Dress RIBSTONE® with diamond stone facing upward.

Color	Blue	Silver	Gold	Red
Grits	120	220	320	Blank



CNB-80 & CNB-120

The CNB family is made from an advanced composite fiber. The CNBs are extremely aggressive and are fabricated to provide incredible strength and cutting action. Used for EDM, welds and rapid stock removal.



POLISHING TIPS:

- Start your polishing with a finer grit stone rather than a coarse stone. You will save time in the long run.
- Hold the polishing stone firmly for directional control, but press only hard enough to make the stone cut. Let the abrasive do the work.
- After each grit change, clean the work area thoroughly to remove all larger abrasive grain particles.
- When using a machine for stoning (profiler, ultrasonic unit, etc.) use moderate speed and pressure only. Excessive speed/pressure can cause minute stresses of metal resulting in "Orange Peel" or dimpling.

Mold Makers Diamond

Oil Soluble with Consistent Diamond Particles Used for precision finishing of all types of molds and dies. It offers a wide thermal processing range allowing it to be used under the most demanding conditions. Mold Makers Diamond's unique 5 and 18 gram syringes are dial controlled offering precise compound distribution and less product waste.

Grade	1-STD	3-STD	6-STD	9-STD	15-STD	30-STD
Mesh	14,000	8,000	3,000	1,800	1,200	800



DIAMAX - A Precise Blend of Manufactured and Natural Diamond

Formulated for a broad range of mold and die finishing work where both finishing quality and productivity are important. Manufactured diamond toughness and extended durability are combined with the unsurpassed cutting capability of natural diamond. DIAMAX offers a stable carrier which assures particle suspension and flows freely, spreading the compound further; and it is less viscous than other products.

DIAMAX Thinner-Lubricant - Used to thin diamond compound slurry and extend the compound. It also reduces gumming.

Grade	1-STD	3-STD	6-STD	8-STD	14-STD	25-STD	45-STD
Mesh	14,000	8,000	3,000	1,800	1,200	800	325



Diamond Files - Precisely Manufactured from the Highest Quality Diamond

Stringent electroplating standards provide excellent durability to each file. Available in Flat, Round or Machine (Short) for use by hand or with short stroke profilers. Our Files are perfectly suited for ribs and slots on all tool steels, molds, dies, punches and carbide as well as a host of other possibilities.

Grits	80	120	140	150	200	320
-------	----	-----	-----	-----	-----	-----



Diamond Foil

Fast cutting plated diamond foil, applied to flexible, adhesive backing sheet. Foil can also be glued to different sized tools and cut to size.

Grits	120	150	200	400	600	800	1200
-------	-----	-----	-----	-----	-----	-----	------

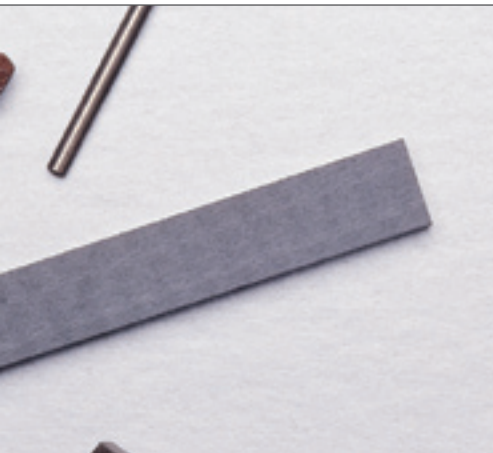




Mounted Points

Our standard line of mounted abrasive points is designed specifically for the mold & die maker. It includes:

- Popular B and W shapes in both medium and hard grades
- Selected A shapes in medium grades
- Small polishing points with 3/32" mandrels in medium, hard and fine grades
- Cotton fiber mounted points for blending and finishing



Boron Carbide Dressing Stick

Boron Carbide (B4C) is the hardest man-made material next to diamond in stick form. B4C dressing sticks are extremely wear resistant and useful for dressing or forming small wheels and mounted points.



Aluminum Oxide Dressing Stick

Dressing sticks are used to clean and condition CBN or diamond grinding wheels. The softer the stick, the quicker the breakdown and faster the dressing. Finer sticks should be used for finer wheels.



Sharpening Stones

Used for deburring, sharpening and honing. Stones are oil pre-filled to save time and eliminate the necessity of presoaking the stone prior to its first use. Available in either aluminum oxide or silicon carbide in a variety of shapes and sizes.

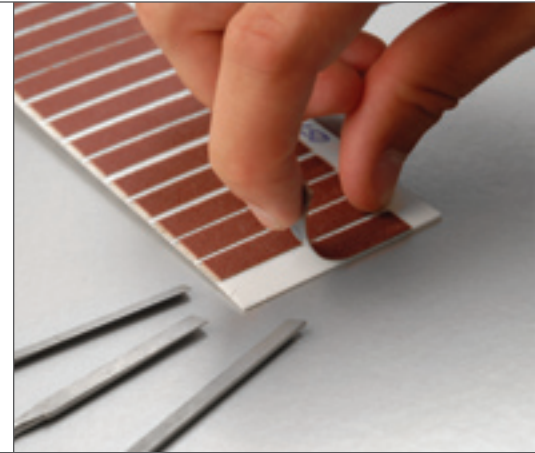


Zip Strips - Pre-Cut and Ready to Use with One Hand Changing

No cutting or two-sided tape necessary. The Zip Strips will not crack or crease, the adhesive is very strong and does not allow slipping and the Zip Strips can be removed and reused. Our tapered blank files used in conjunction with Zip Strips allow placement in thin ribs and slots for fine detail finishing.

Tapered Blank Files - Tapered Blank Files are flexible and can be used with a variety of polishing products in those hard to reach areas of your molds and dies.

Grits	100	150	240	320	400	500	600	800
-------	-----	-----	-----	-----	-----	-----	-----	-----



Red Silicon Carbide Paper - A sharp, strong, silicon carbide abrasive offering extreme flexibility and exceptional finishes in wet applications.

Red Aluminum Oxide Paper - The ultimate choice for polishing aluminum; it also works well on tool steels and light metals. With its outstanding durability it also provides an excellent surface finish.

Grits SiC	220	240	280	320	360	400	500	600	
Grits AlO	80	120	220	320	400	600	800	1000	1200



PSA Discs and Holders

PSA discs are long lasting, fast cutting durable discs made from quality bonded paper with strong adhesive. The PSA disc holders are offered in two sizes.

Grits	60	80	120	150	240	320	400
-------	----	----	-----	-----	-----	-----	-----



Excellent Product Quality and Lot-to-Lot Consistency

We manufacture utilizing current technology and using the best abrasive grain, bond components and other raw materials. Outstanding quality is achieved by careful attention to process details. **BORIDE Engineered Abrasives is ISO 9001:2000 Certified.**



Stone Holders

Specially designed holders for hand use and profilers. Conventional and detail polishing holder designs are available. All holders are made of material that will not damage mold and die surfaces.



BORI-LUBE 10 - Polishing Lubricant

BORI-LUBE 10 is formulated for mold polishing to clean, lubricate and prevent stone loading. Environmentally friendly and non-hazardous.



Mold Polish - Safely Removes Haze, Plate-Out, Rust, Oxidation and Stains

BORIDE Mold Polish produces a high luster finish and leaves a protective film to retard oxidation and rust. The 20 gram syringe applicator safely applies our polish to diamond finishes and safely removes haze, plate-out, rust, oxidation and stains on fine tooling surfaces. BORIDE Mold Polish is non-hazardous and non-corrosive and has no harsh odors.



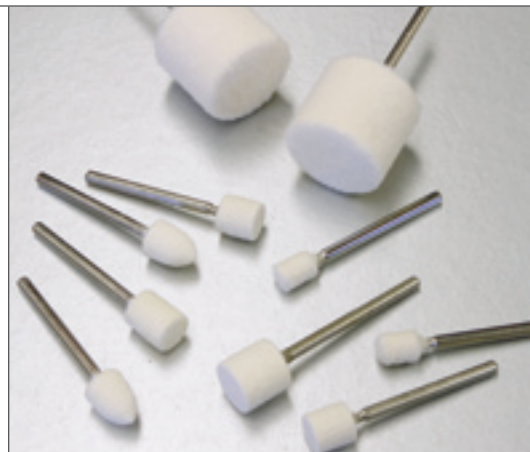
Miniature Brushes - All with 1/8" Mandrel

Our mandrel-mounted wire and hair brushes are of the most durable in the industry. Brush filaments are securely embedded in a steel ring construction offering the highest quality through consistent distribution.



White Felt Bobs

Our felt bobs are made from the finest wool materials and may be used with polishing compounds to produce a high surface finish on all dies and molds.



Wood Sticks

We offer a wide selection of wood sticks for lapping and finishing by hand or with reciprocating and rotary tools. Softer wood creates a higher surface finish while the harder sticks cut fast and hold shape longer.



Nearly 40 years of Manufacturing Abrasive Products

BORIDE Engineered Abrasives possesses a wealth of experience and technology to create the necessary product performance and to provide technical support.



Type of Stone	Surface					Method			Use		Breakdown 0 = Slow 5 = Fast	Hardness 0 = Soft 5 = Hard	
	Tool Steel	Aluminum	Non-Ferrous	Stainless Steel	EDM	Hand	Profiler	Ultrasonic	Wet	Dry			
EDM Polishing Stones													
AM-8	•				•	•	•	•	•		2	4	
AS-9	•				•	•	•		•	•	3	3	
Orange EDM	•				•	•	•		•	•	3	3	
GOLD	•				•	•	•		•		3	3	
General Purpose Stones													
AM-2	•	•	•	•		•	•		•	•	4	2	
Die Stone	•			•		•	•		•	•	3	3	
AM-K	•	•				•	•		•	•	3	3	
AS-H	•	•	•	•		•	•		•	•	4	2	
CS	•		•			•			•	•	5	2	
CS-M	•	•	•			•	•		•	•	4	2	
CS-HD	•			•	•	•	•		•	•	3	3	
Specialty Stones													
PC	•	•	•	•		•	•		•		4	2	
T2	•			•	•	•	•		•		2	4	
T4	•	•	•	•		•	•		•		4	3	
TH	•				•	•	•		•		3	3	
A0	•				•	•	•		•		3	3	
900-F	•					•			•		5	0	
Detail Stones													
Ceramics	Detail Areas, Ribs & Slots								•	•			
CNB - 80 & 120	Aggressive - Fast Cutting / Welds-Blending EDM								•	•			
RIBSTONE®	Standing Flat Walls of Ribs & Slots								•	•			

Special Requirements?

Because BORIDE Engineered Abrasives is a manufacturer of specialty abrasives for mold finishing and other demanding industrial applications, we have the capability and technology to design products for special needs.

Special Formulations and Treatments

High Volume Applications

Special and Bulk Packaging

Private Labeled Product

ISO 9001:2000
CERTIFIED



2615 Aero Park Drive
Traverse City, MI 49686-9101 USA

phone: 231.929.2121 • 800.662.0336
fax: 231.946.2852 • 800.662.0298
email: info@borideabrasives.com
web: www.borideabrasives.com