

Natural and Synthetic Superabrasives - PDC Blanks - PCD/PCBN Tools
Specialized Diamond Tools - Process Automation - Technical Consulting



RESIN-BOND Series



Resin-Bond Series

True Resin-Bond Diamond

LANDS Superabrasives supplies a carefully engineered line of resin-bond synthetic diamond, having various degrees of G-Ratio's. The product line is designed to be self-sharpening during the life of the tool. These properties allow the user to obtain extended tool life while maintaining cost effectiveness.

LS070



The most friable diamond in the resin-bond series; this crystal fractures quickly and is ideal in low force grinding applications where fast removal rate is key. An irregular shape characterizes this diamond crystal.

Available Sizes: 80/100-400/500

LS100



The staple product in the resin-bond series. Its high friability ensures controlled breakdown of the crystals. Strong bond retention results from its irregular shape and rough surface area.

Available Sizes: 60/80-400/500

LS120



A blocky crystal, offering a more consistent crystal shape than the LS100. This crystal is recommended in more demanding applications where a tougher crystal is required, especially in processing material containing more than 20-30% steel.

Available Sizes: 60/80-400/500





RESIN-BOND *Series*



Resin-Bond Series

Metal-Bond Diamond used in Resin-Bond Applications

LANDS Superabrasives supplies a carefully engineered line of "metal-bond" synthetic diamond, specifically for resin-bond applications. The product-line features sharp crystals, ideal of extended tool-life.

LSMBO



Friable Metal Bond Crystal

One of the strongest crystals in the resin-bond series; with the right-hardened resin-bond it is an extremely competitive product. The LSMBO is identified as the 'all-purpose' crystal since it remains sharp while retaining its shape in almost all resin-bond grinding.

Available Sizes: 30/40-400/500

LS-30W

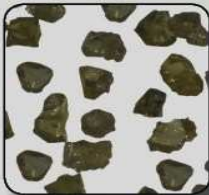


Standard Metal Bond Crystal

Although a crystal used primarily in metal-bond, this crystal has proven to be the crystal of choice in resin-bond wheels for steel-carbide grinding. The LS-30W features a true monocrystalline crystal type with a blocky crystal shape.

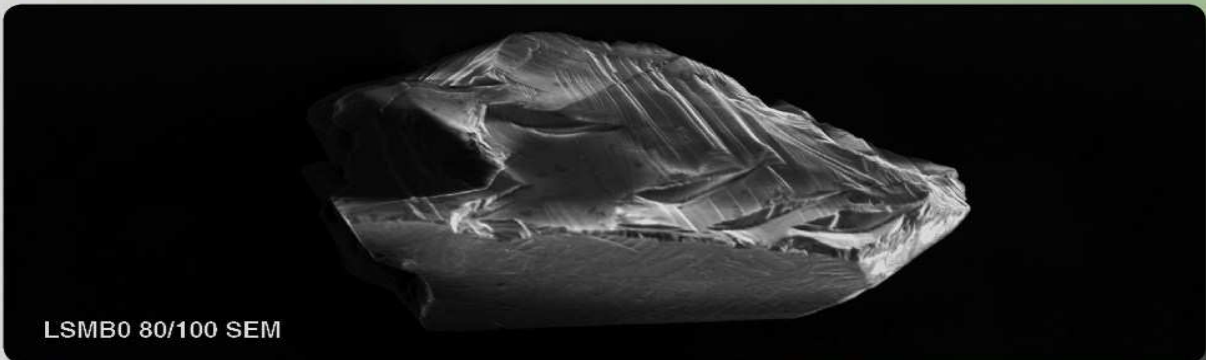
Available Sizes: 30/40-400/500

LS2280



LS2280 -developed as an alternative to natural diamond it has found its way into the traditional resin-bond series. When a harder bond requires a harder crystal than the regular LS100-series or LSMBO series, the LS2280 can be utilized. This product is also being promoted as an economical, price controlled alternative to natural diamond grit.

Available Sizes: 30/40-400/500



LSMBO 80/100 SEM



COATINGS

RESIN-BOND Series



Metal Coatings by Electrolysis and Electro-less coating help to improve the life of our Diamond (and CBN crystals). LANDS offers a full array of metal coatings. The coatings offer improved bond retention, aid in thermal conductivity, and protection within the bond against thermal degradation. The nickel cladding also assists in heat dissipation protecting the base so it can withstand the highest RPM speeds, grinding forces, and temperatures.

Standard Nickel (30-56-60%): Ideal for high force grinding.

Dual Layer Ti/Ni (60%): Better heat dissipation between CBN crystal, Ni layer, and bond.

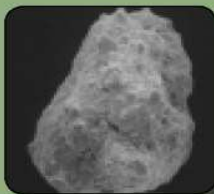
Spiky Nickel (30-56-60%): Enhanced bond retention/heat dissipation ideal for tungsten carbide grinding applications.

Nodular Nickel (60%): Tough Ni coating; better retention in polyimide resin-bonds.

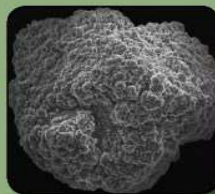
Standard Silver (50%): Dry grinding applications, low-pressure.

Standard Copper (50%): Dry grinding applications.

SILVER



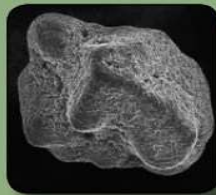
COPPER



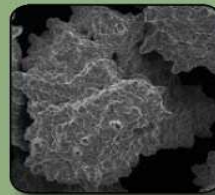
MODULAR Ni



STANDARD Ni



SPIKY Ni



LS105Ag



LS105C



LS105N



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COATINGS

RESIN-BOND Series



MOST FRIABLE		>>>> >	>>>>>	MOST TOUGH	
DIAMOND CHOICES FOR RESIN-BOND GRINDING	LS070	LS100	LS120	LSMBO	LS30W
BASE CRYSTAL	Ultra friable, irregular resin-bond diamond	True resin-bond diamond	Blocky true resin-bond diamond	Friable metal-bond diamond	True metal-bond diamond
SIZES AVAILABLE	80/100 - 400/500	60/80 - 400/500		30/40 - 400/500	
COATINGS	Unclad 30%, 56%, 60% Nickel (Ni), Spiky Ni, Nodular Ni Coating 50% Copper (Cu), 50% Silver (Ag), Ag/Cu combo				
CHARACTERISTICS	Very friable and aggressive	Friable and aggressive "standard resin-bonds"	Tough yet aggressive	Sharp and tough	True metal-bond, mono-crystalline, blocky and tough
STANDARD APPLICATION	Specialized grinding benefiting from a free cutting crystal	Wet and dry carbide grinding	Strenuous carbide grinding, ceramic grinding	"All-purpose" grinding, higher temperature applications	Carbide-Steel

