



METAL-BOND Series

Traditional

Grinding

LANDS Superabrasives supplies a series of carefully engineered metal-bond synthetic diamonds. Each type has individual characteristics that provide a wide range of possible applications for the tool makers.

LOW

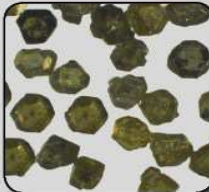


LS200 | LS230

Very friable metal-bond diamond powder with irregular shaped crystals. It features an excellent price/quality ratio for some specific non-demanding metal-bond applications.

Available Sizes: Mesh 30-500

MEDIUM

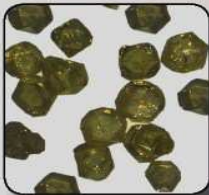


LS240 | LS250 | LS260

A regular-shaped, medium-tough diamond. This semi-blocky crystal with angular shapes is considered the standard product for the widest variety of metal bond and electroplating applications.

Available Sizes: Mesh 80-500

HIGH



LS270 | LS290

Premium strong and blocky crystals that will hold up under severe working conditions featuring a very low rate of fracture during the grinding process. The LS290 features the toughest crystal in the series. Its shape is (cubo)octahedral with virtually no inclusions. The LS290 is the preferred product in the most demanding applications, highest sintering temperatures and grinding pressure.

Available Sizes: Mesh 80-500





METAL-BOND *Series*

Traditional

Sawing

LANDS Superabrasives supplies a series of carefully engineered metal-bond synthetic diamonds. Each type has individual characteristics that provide a wide range of possible applications for the tool makers.

LOW



LS400 | LS430

These qualities feature blocky and mostly regular shape crystals of medium toughness, recommended for use in low to medium temperature metal-bond systems. Rougher surface of crystals results in superior bond retention in both sintered and electroplating applications.

Available Sizes: Mesh 30-80; other sizes upon request

MEDIUM

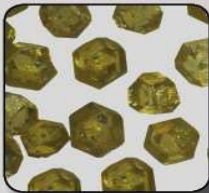


LS450 | LS460 | LS470

This saw blade range features a majority of cubo-octahedral crystals with well developed, smooth faces. The very high relative toughness of these crystals makes it ideal for extremely hard working conditions in medium and high temperature bonds. Recommended for use in most sawing, drilling and finishing applications.

Available Sizes: Mesh 30-80; other sizes upon request

HIGH



LS480 | LS490

These grits consist of an almost entirely cubo-octahedral shaped crystals. This crystal is designed to perform in the most demanding applications without compromising removal rate or its strength integrity. This quality consists of specially selected, tough crystals, used for grinding of more wear resistant materials and is recommended where increased power is used and continuous cutting is required to avoid diamond glazing.

Available Sizes: Mesh 30-80; other sizes upon request





METAL-BOND Series

Carbon+

Sawing & Grinding

LANDS Superabrasives supplies a carefully engineered synthetic diamond grit for sawing and grinding applications. The carbon+ series is manufactured under a new revolutionary engineering process developed by LANDS Superabrasives. The Carbon+ crystals reach the highest level of product quality and consistency.

LOW

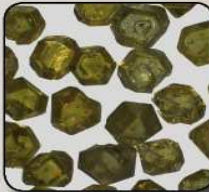


LS4750+ | LS4760+

This grade is ideal for light applications and medium strength impacts. The distribution of the diamond shape is wider than LS4770+ and LS4780+ respectively. This diamond type is ideal for low impact strength diamond ideal for moderate stone applications. Sintering temperatures up to 850°C.

Available Sizes: 25-400; other sizes upon request

MEDIUM

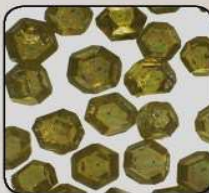


LS4770+ | LS4780+ | LS4790+

The diamonds have a uniform shape and strength with a low inclusion level. Ideal in general purpose applications. The diamonds are mainly cubo-octahedral in shape with a high impact toughness. Ideal in hard granite and concrete applications. Sintering temperature up to 950°C. The diamonds have a very low level of inclusions, wider variety of shape ideal for multipurpose applications.

Available Sizes: 25-400; other sizes upon request

HIGH



LS4810+ | LS4820+

This is the highest performing grit in the carbon+ range. This diamond is specially engineered to have the most optimized shape and inclusion level. The diamond can be sintered at temperatures in excess of 1000°C. Recommended in reinforced concrete, asphalt as well as core drilling. The diamonds are cubo-octahedral with minimal inclusions and high thermal strength. Ideal in high impact/power machines.

Available Sizes: 25-400; other sizes upon request





METAL-BOND Series

COATINGS / TREATMENTS

*Treatment for Electroplating
Titanium, TiNi Coating*

All products in Metal-Bond Series can be treated for use in electroplating. These treated products are designated with the suffix "E", for example LS4820+E.

LANDS Superabrasives promotes the use of titanium coated diamond crystals for the manufacturing of stone processing tools. Multiple benefits will come both to the tool manufacturer and to the end-user who is processing the stone.

Key Benefits

- » Prevention of early pull-out.
- » Increased tool life resulting in a lower cutting cost per square meter.
- » Less power consumption for the end-user, since a better free cutting action is obtained.
- » Better bond retention, since the crystal sticks to the matrix and gets completely embedded.
- » Better heat dissipation (thermal conductivity) improving the grit strength and decreasing the crystal tensions.
- » Diamond surface protection against aggressive metals and gasses from the matrix during the sintering process.

TITANIUM COATING



Titanium coated diamond crystals can be used in any regular and classic bond matrix.

LANDS Superabrasives offers also a dual Ti/Ni coating, maximizing bond-retention and heat dissipation.

For GRINDING Applications

LS4810+ LS4820+	LS4790+	LS4780+	LS4770+	LS4760+	LS4750+
High toughness High stock removal	High toughness	Medium toughness Long contact area	Low toughness	Electrodeposition	Low toughness
GLASS					
-chamfering car glass -grooving car glass -grooving (slotting) crystal ware	-chamfering car glass -grooving car glass -engraving crystal ware -profiling of crystalware with 22% Pb	-chamfering -finish of glass and mirrors -making of 3 dimensional profiles	-profiling mirrors -polishing chamfers	-profiling mirrors -polishing chamfers	
GRANITE					
-smoothing & chamfering -minor cutting -grinding	-calibrating	-minor cutting -calibrating	-polishing -honing	-polishing	
MARBLE/LIMESTONE			MARBLE		
-minor cutting		-minor cutting -honing	-polishing		
FERRITE		TUNGSTEN CARBIDE		CERAMICS	
-grinding		-sharpening & cutting edges		-dental drills	
CERAMIC TILES					
CAST IRON					
-minor cutting -calibrating		-honing of cylinder heads			