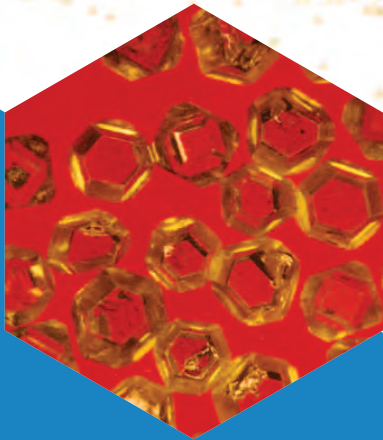


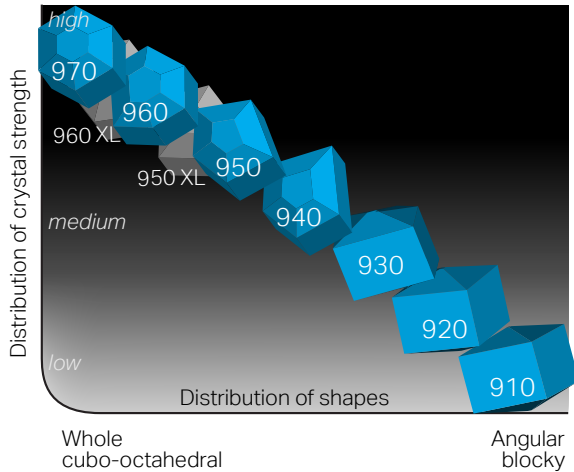
TOOLMAKER SOLUTIONS
**MBS[®] Uncoated
Diamond**



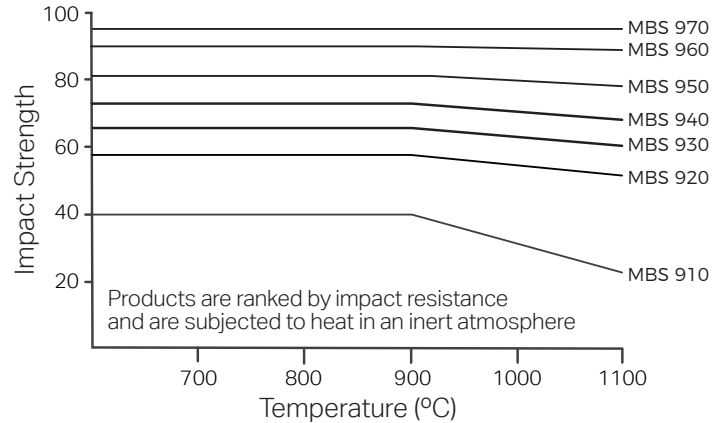
Diamond abrasive for
demanding applications in
construction and mining

MBS® 900 DIAMOND SERIES

PRODUCT DESIGN CONCEPT OF MBS 900 DIAMOND SERIES



IMPACT STRENGTH THERMAL TOUGHNESS RANKING OF MBS 900 DIAMOND SERIES



MBS 970 DIAMOND THE TOUGHEST & MOST THERMALLY STABLE DIAMOND IN THE MARKET

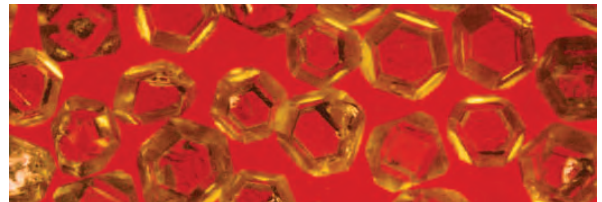
Hyperion's MBS 970 diamond was developed through innovative diamond characterization technology in the fields of optical spectroscopy, image analysis and fracture mechanics. The superior properties of this diamond enable improved wear performance ranging up to 50% in challenging applications, while power consumption decreases as much as 10%.

PHYSICAL PROPERTIES

MBS 970 diamond contains engineered crystals with extremely high strength, thermal stability and controlled shapes.

APPLICATIONS

- Core drilling
- Multi blade and large blade slabbing
- Wire sawing
- High performance sawing and drilling



PREMIUM DIAMOND

The MBS 900 diamond series is a full line of advanced engineered crystals designed for sawing and drilling applications. Product characteristics of size, shape, impact toughness, fracture strength and thermal stability have been designed to meet performance requirements for a wide range of sawing and drilling applications in the mining, oil and gas, stone processing, renovation and construction industries.

THE ART OF DIAMOND CHARACTERIZATION

The MBS 900 diamond series is manufactured under a process of advanced engineering methodology. Hyperion developed revolutionary characterization techniques to achieve the highest level of product quality and consistency.

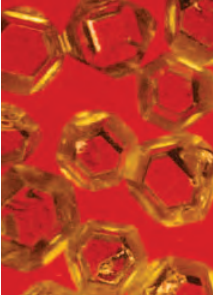
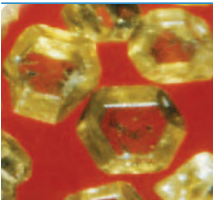
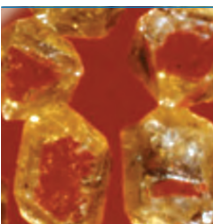
WELL-DEFINED CRYSTAL STRENGTH

Compressive fracture strength (CFS) testing resembles the actual dynamic impact loading a crystal experiences during a cutting process more closely than any other conventional method. It provides a genuine distribution of strengths within a population of diamonds. Hyperion is able to engineer diamonds to maximize the effects of compressive fracture strength.

QUANTIFIABLE SHAPE MEASUREMENT

Hyperion has taken the procedure of visual shape characterization from an art to a science by use of computer image analyses. Eccentricity, a quantifiable measurement of shape, is used as part of an engineering process to create, characterize and evaluate premium grade MBS diamond.

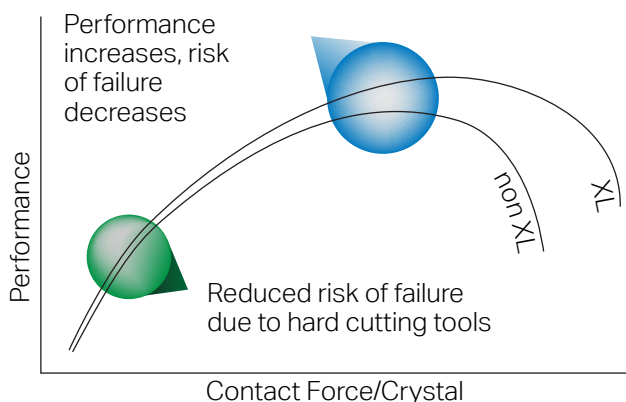
MBS® 900 DIAMOND SERIES

PREMIUM GRADES	PRODUCT	DESCRIPTION	SUITABLE FOR APPLICATIONS DEMANDING
	MBS 970 Diamond	<ul style="list-style-type: none"> - Extremely high strength - Supreme thermal stability - Controlled shapes 	<ul style="list-style-type: none"> - Consistent, aggressive penetration and/or cut rates - Superior tool life
	MBS 960 Diamond	<ul style="list-style-type: none"> - Optimized shape - Minimal inclusion level - High impact strength 	<ul style="list-style-type: none"> - Very high impact and high power applications
	MBS 950 Diamond	<ul style="list-style-type: none"> • Low inclusions • High thermal strength • Narrow shape distributions 	<ul style="list-style-type: none"> - High impact/power restricted machines
MEDIUM GRADES	PRODUCT	DESCRIPTION	SUITABLE FOR APPLICATIONS DEMANDING
	MBS 940 Diamond	<ul style="list-style-type: none"> - Moderate inclusion level - Wider variety of shapes and strengths 	<ul style="list-style-type: none"> - General purpose applications
	MBS 930 Diamond	<ul style="list-style-type: none"> - Medium friable diamond - Retains high percentage of cutting edges 	<ul style="list-style-type: none"> - Premium diamond for dry cutting blades
ECONOMY GRADES	PRODUCT	DESCRIPTION	SUITABLE FOR APPLICATIONS DEMANDING
	MBS 920 Diamond	<ul style="list-style-type: none"> - Moderately friable diamond with a combination of cubo-octahedral crystals and other whole shapes 	<ul style="list-style-type: none"> - Moderate applications where impact strength is favored
	MBS 910 Diamond	<ul style="list-style-type: none"> - Higher friability - Broader distribution of shape and strength properties 	<ul style="list-style-type: none"> - Light applications where moderate impact strength is required

MBS XL DIAMONDS ENHANCED CRYSTAL DESIGN

MBS XL diamonds are the result of an enhanced crystal design of the Hyperion MBS 900 diamond series for applications where an extremely robust performance is the key to success. MBS XL diamond crystal design enables higher throughput at lower system costs allowing for the use of enhanced cutting parameters and considerably longer tool life. The MBS XL diamond proprietary design technology significantly reduces the risk of field failures, even under the most adverse conditions.

MBS XL - LOW RISK BIG WIN FOR TOOL MANUFACTURERS AND END USERS



MBS DIAMOND GENERAL APPLICATION GUIDELINES*

	970	960 XL	960	950 XL	950	940	930	920	910
Reinforced concrete hard aggregate	flat sawing								
	wire sawing								
				wall sawing					
	core drilling								
Concrete most aggregates				flat sawing					
				wire sawing				block grinding	
				core drilling					
Green concrete asphalt	highway drilling						hand-held, DIY		
	flat sawing								
Granite	wire sawing								
	large blade								
	multi blade								
	trimming				calibrating		polishing		
Marble limestone						wire sawing			
						frame sawing			
						trimming			
						calibrating			
Exploratory Mining	XDD		PDD						
Oil and Gas	core sample removal								
	impregnated down-hole drilling								

* This table is a general guideline. Please consult with your local sales representative for specific application requirements.

MBS DIAMOND MESH SIZE / FEPA SIZES AVAILABLE

	SINGLE SIZES									COMBINED SIZES*							
	20/25 (D851)	25/30 (D711)	30/35 (D601)	35/40 (D501)	40/45 (D426)	45/50 (D356)	50/60 (D301)	60/70 (D251)	70/80 (D213)	20/30 (D852)	25/35 (D712)	30/40 (D602)	35/45 (D502)	40/50 (D427)	45/60 (D357)	50/70 (D302)	60/80 (D252)
MBS XDD & PDD Diamond	•	•	•	•	•	•				•	•	•	•	•			
MBS 970 Diamond		•	•	•	•	•	•	•	•		•	•	•	•	•	•	•
MBS 960 XL Diamond		•	•	•	•	•	•	•	•	•	•	•	•	•	•		
MBS 950 XL Diamond		•	•	•	•	•	•	•	•	•	•	•	•	•			
MBS 960-910 Diamond	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

* All combined size ranges are held to ± 5% tolerance of single size composition.
 For 18/20 mesh size availability, please contact Hyperion.
 Coatings & treatments available: CR2 SB Si2 TI T12 T-Treatment

