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PRODUCT DATA SHEET: PowerKote™ CBC1 Metallic Ceramic Thermal Barrier

Part#: CBC1

SELECTION DATA

PRODUCT DESCRIPTION:

CBC1 is a metallic ceramic coating designed to be used on either cast iron or aluminum combustion chamber surfaces. CBC1 is formulated to be used in all engines, both two- and four-stroke as well as rotary engines. CBC1 is similar to CBX. CBC1 provides a hard, durable thermal barrier overlay to any component. Provides reduced part temperature, resistance to detonation, increased combustion chamber efficiency. More efficient oxidation of fuel also occurs, leading to increased power output. CBC1 allows minimal transfer of heat through the coated surface thus reducing part operating temperature as well as reducing the load on the cooling system. May be formulated with additional fillers to increase wear or abrasion resistance.

CBC1 is a unique water based system that cures at 300°F for 1 hour, at temperature. Material cleans up easily before curing with water. Non-flammable system with no volatile organic compounds (V.O.C.), is compatible with today's emphasis on environmentally friendly products. CBC1 may be used on all metals.

NOT RECOMMENDED FOR: Substrates that cannot handle the cure temperature.

APPLIED FILM THICKNESS: .0005" to .001"

HRC (Equivalent Rockwell C Scale): N/A

ADHESION (Tape Test ASTM D 3359): 5B

PENCIL HARDNESS TEST: in excess of 8H

IMPACT TEST (ASTM D 2794 2 lb. Weight): 48" on both sides of a coated plate and no delamination occurred.

FLEXIBILITY/ BENDING ADHESION: 180° no delamination.

THERMAL TEMPERATURE RESISTANCE: Adhesion to over 2000°F.

SALT SPRAY RESISTANCE (ASTM B117): N/A

CORROSION TEST DATA: N/A

ACCEPTABLE SUBSTRATES FOR APPLICATION: Ferrous and non-ferrous substrates, plastics and composites that can handle the cure temperature.

THERMAL SHOCK: Pass

ELECTRICAL PROPERTIES: Non-Conductive

CHEMICAL RESISTANCE: Good

FILM TYPE: CBC1 forms an impregnated film on the surface by bonding into the pores.

Note: N/A refers to characteristics that are not applicable to this type of coating.