CERAMIC PARTICLE LOADING

The CeRam-Kote 54® SST coating technology, **ceramic particle loading**, results from our unique ability developed over thirty years and the trial of hundreds of formulas. Ceramic particle loading is the addition of a complex series of ceramic particles into a polymer which causes the polymer to out-perform its basic chemistry.

CERAM-KOTE 54 ® SST

The *FLEXIBLE* Ceramic

In addition to improving the chemical performance of polymers, ceramic particle loading significantly enhances the dynamic mechanical performance of the polymer.

Total performance characteristics of CeRam-Kote 54® SST are significantly better than liquid epoxy, fusion-bond epoxy and other high performance coating systems.

ENCAPSULATING CERAMIC SHELL

CeRam-Kote 54® SST protects by binding ceramic particles to a unique polymer, thus creating an **encapsulating ceramic shell**. Each ceramic particle is resin coated and becomes tightly packed in the cured film.

The **compact density** of the cured film of CeRam-Kote 54® SST yields dynamic intangible benefits such as:

- **high surface lubricity** producing a lower drag coefficient on a variety of surfaces, and
- extraordinary **sliding abrasion** resistance providing protection against the forces of erosion/corrosion and abrasion.

TOUGH BARRIER COATING

CeRam-Kote 54® SST's **direct-to-substrate** one-coat, two-pass system translates to increased production efficiency and significantly reduced down-time, essential in industry today.

CeRam-Kote 54® SST is formulated for atmospheric corrosion service as well as for immersion service in very harsh environments.

CeRam-Kote 54® SST currently protects expensive and critical equipment in industries serving Oil and Gas, Offshore, Marine, Petrochemical and Industrial Markets with proven documented results. Applications have expanded into the Food and Beverage, Paper and Pulp, Wastewater Treatment, Electrical Power, Transportation and Mining Industries.

Extremely high adhesion to virtually any substrate (including marginally prepared substrates making this product an excellent surface tolerant coating) combined with extraordinary mechanical properties, make CeRam-Kote 54® SST a superior protective coating where high abrasion and severe corrosion problems exist.

PHYSICAL PROPERTIES – TEST DATA	
Adhesion (ASTM D4541, elcometer pull-off)	**>3,000 psi (20.68 MPa)***
Abrasion Resistance (ASTM D 4060, Tabor Test 1,000 cycles, CS 17 wheel, 1kg))	**30 milligrams loss****
Surface Roughness (Profilometer value)	**20 Ra**
Flexibility (ASTM D 522)	**15% elongation**
Impact Resistance - Direct (ASTM D 2794)	**40 inch-pounds**
Salt Spray (ISO 7253)	**6,000 hours**
Cathodic Disbondment (CAN/CSAZ245.20-10, 23°C, 28 days (Pass = 20 mm)	**8 mm Disbondment**
Chemical Testing (ASTM G 20 – modified to 30 days at 75°F/23.9°C) HCL in H_20: pH of 2.9 HF in H_20: pH of 2.9 H_2SO_4 in H20: pH of 2.1 NaCl (10%) + H_2SO_4: pH of 2.9 NaCl (10%) in H_20	 **No Change** **No Change** **No Change** **No Change** **No Change**
VOC (Volatile Organic Compounds)	**1.63 lb/gal (196 g/lit)** (calculated value)

Note: More detailed information is available in the Summary Test Data or is available upon request.

**Adhesion test values for normal production can vary up to 35%.*
***Abrasion test values for normal production has a max acceptable value of 75 mg loss.*

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