

Devcon Sprayable Ceramic



DESCRIPTION

Sprayable Ceramic is a reinforced composite that can be sprayed in a manner similar to high solids paints

RECOMMENDED APPLICATIONS

- Seal and protect new equipment exposed to erosion and corrosion
- Protect pump casings, impeller blades, gate valve, water boxes and fan blades
- Use it as a topcoat on repaired surfaces to provide an exceptional smooth surfaces
- Tanks, chimneys, pumps, paper machine

PRODUCT DATA

Chemical Resistance 7 Days room temperature cure (30 days) – Testing Carried out 30 days immersion at 21°C	
Ammonia	Excellent
Cutting Oil	Excellent
Ethyl Alcohol	Excellent
Gasoline (unleaded)	Excellent
Hydrochloric Acid 10%	Excellent
Methyl Ethyl Ketone (MEK)	Poor
Methylene Chloride	Poor
Sodium Hypochlorite 5% (bleach)	Excellent
Sodium Hydroxide 10%	Excellent
Sulphuric Acid 10%	Excellent
Xylene	Excellent

Excellent - +/- 1% weight change
 Very Good - +/- 1-10% weight change
 Fair - +/- 10-20% weight change
 Poor - > 20% weight change

PACK SIZE

- Blue 10Kg
- Grey 10Kg

PRODUCT DATA

Typical Physical Properties	
Colour	Light Grey
Mix Ratio By Volume	2.2:1
Mix Ratio by Weight	2.6:1
% Solids by Volume	100
Pot Life @ 25°C	25-50 minutes
Specific Volume CC/Kg	833
Cured Shrinkage cm/cm	0.002
Specific Gravity	1.2
Temperature Resistance / °C	Dry 150°C
Coverage	0.833m ² /kg & 1mm
Cured Hardness / Shore D	80 D
Dielectric Strength KV/mm	15
Adhesive Tensile Shear/MPa	14
Compressive Strength MPa	105
Coefficient of Thermal Expansion x10 ⁻⁶ cm/cm/°C	34.2
Thickness per Coat / mm	As Required
Functional Cure Time / Hours	16
Recoat Time / Hours	4
Mixed Viscosity / cps (where Applicable)	9,000

PRECAUTIONS

For complete safety and handling information, please refer to the appropriate Material Safety Data Sheets prior to using this product.

SHELF LIFE & STORAGE

A shelf life of 3 Years from date of manufacture can be expected for this product when stored at room temperature (22°C) in their original containers.



APPLICATION INFORMATION

Cure

Working time is 25 - 50 minutes at 21°C. Sprayable Ceramic will achieve a tack-free finish approximately 4 hours after application. Functional cure is achieved in about 16 hours at 20°C. Full properties are achieved within 5 – 7 days.

Surface preparation

Proper surface preparation is essential to a successful application. The following procedures should be considered:

- All surfaces must be dry, clean and rough.
- If surface is oily or greasy use Devcon Fast Cleaner 2000 Spray/Cleaner Blend 300 to degrease the surface.
- Remove all paint, rust and debris from the surface by abrasive blasting or other mechanical techniques.
- Provide a "profile" on the metal surface by roughening the surface. This should be done ideally by grit blasting (8-40 mesh grit), or by grinding with a coarse wheel or abrasive disc pad. An abrasive disc may be used provided white metal is revealed. Do not 'feather edge' epoxy materials. Epoxy material must be 'locked in' by defined edges and a good 75-100 micron profile.
- Metal that has been handling sea water or other salt solutions should be grit blasted and high pressure water blasted and left overnight to allow any salts in the metal to 'sweat' to the surface. Repeat blasting may be required to 'sweat out' all the soluble salts. A test for chloride contamination should be performed prior to any epoxy application. The maximum soluble salts left on the substrate should be no more than 40 p.p.m. (parts per million).
- Chemical cleaning with Devcon Fast Cleaner 2000 Spray/Cleaner Blend 300 should follow all abrasive preparation. This will help to remove all traces of sandblasting, grit, oil, grease, dust or other foreign substances
- Material temperature range 20-30°C, Substrate temperature between 10 & 40°C

Mixing

- Use only complete kits. Add the hardener to the resin and mix thoroughly for 2 minutes with a jiffy mixer, or similar. Ensure that a streak free mix is achieved.

APPLICATION INFORMATION

Equipment

- Airless Spray Equipment 45:1 with a minimum tip pressure of 3000psi
- Line Diameter 16mm – Short Lengths of Hse
- Whip End 3/8 from hose to gun
- 525 or 527 Spray tips

Clean Up

Flush gun and all pump line parts with Xylene immediately after completion. Failure to do so will result in clogging of lines.

Application

- The wet end of the spray unit can be warmed to approx. 25° C prior to use. This will prevent the product cooling in contact resulting in an increase of viscosity.
- To aid cleaning the wet end should be masked off with tape before immersion.
- The material should be at room temperature ~21°C before spraying commences. Sufficient material for the complete job should be prepared (although not mixed) in advance. In addition sufficient personnel should be present to enable material to be mixed during the application.
- Ensure airborne contamination from surrounding areas is not present during application.
- Adequate temperature is crucial to ensure effective atomisation of this product. If workshop conditions are below 21°C it is advisable to pre-warm and insulate spray lines but NOT the main bulk of material..
- Remember that increasing product temperature too much will result in a notably reduced pot life.

WARRANTY

ITW Devcon will replace any material found to be defective. As the storage, handling and application of this material is beyond our control we can accept no liability for the results obtained

DISCLAIMER

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Devcon makes no representations or warranties of any kind concerning this data. for Product Assistance contact Speccoats