



FLEXCEL PRECATALYZED

TECHNICAL DATA

SINGLE COMPONENT ELASTOMERIC PROTECTIVE COATING

THE PRODUCT AND ITS USES

Flexcel PreCatalyzed is a single component polyurethane resin coating which, when applied like paint, cures by a polymeric reaction to a tough, stretchy, abrasion resistant, impact resistant film. Flexcel PreCatalyzed will set and cure at any ambient temperature down to 15°F (-10°C).

Flexcel PreCatalyzed can be used, alone or in conjunction with glass fibre, to protect surfaces which are subject to movement, abrasion and corrosion. Typical applications are holding tanks, waste pumps, sewage treatment plant digesters and clarifiers.

Flexcel PreCatalyzed is available in standard and mastic versions. The standard product looks and applies like paint. The mastic version is ideal for preparing cracked or spalled concrete or for touch-up and repairs. Where fast cure, unlimited one-coat build, high throughput and zero VOC's are desired, please refer to our Flexcel II family of products (require special application equipment).

TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	-10°C(15°F) to 50°C(120°F)
Viscosity	Brookfield Viscometer	Paint-Like(mastic is gel-like)
Initial Setting Time	@ 20°C/70°F	4 hours
Curing Time Before Handling	@ 20°C/70°F	8-12 hours
Ultimate Cure	@ 20°C/70°F	7-10 days
Recoat Time*	@ 20°C/70°F	Up to 48 hours
Solids Content	ASTM D-1259	70%
Volatile Organic Compounds (VOCs)	ASTM D-2369	240 grams/litre (tar grade is 160 grams/litre, mastic is 80 grams/litre)
Theoretical Coverage	N/A	27 m ² /litre/ 25 microns (1120 ft ² /US gallon/mil)
Adhesion to Steel	ASTM D-4541 (SSPC -SP5)	Greater than 500 p.s.i.
Flexibility	@23° C ASTM D412	180° over knife edge @ 10 mils
Elongation	ASTM D-412	Greater than 200% uncatalyzed; greater than 300% catalyzed
Abrasion Resistance	ASTM D-4060 (Taber CS-17)	Less than 30 mg@ 1 kg loss per 1000 cycles
Chemical Resistance	ASTM D-543	See chemical resistance charts
Tensile Strength	ASTM D-412	800 +/- 200 p.s.i.
Hardness (Shore A)	ASTM D-2240	Shore "A" 85 +/- 5
Impact Resistance	ASTM D-2794 (20 mils)	Greater than 200 in.lbs
Water Absorption	ASTM D-471	Less than 3%
Temperature Resistance	ASTM D-870, D-2485	-40°C (-40°F) to + 50°C (120°F)
Colors		Consult sales representative

*However, recoat window varies depending on the spray equipment temperature setting, the ambient conditions, product temperature/thickness, and the temperature of the substrate being coated.

NOTE: All statements, technical information and recommendations contained herein are typical of results obtained under laboratory conditions and are not intended to be used as contract specifications. For specification guidelines please contact Madison Chemical.

APPLICATION INSTRUCTIONS

CONTACT MADISON FOR DETAILED APPLICATION INSTRUCTIONS.

A. SURFACE PREPARATION

- 1) Ensure that surface is clean, dry and uncontaminated. Proceed only if the substrate temperature is more than 3°C(5°F) above the dew point temperature during surface preparation and coating application.
- 2) Abrasive blast clean with sand or grit (G40 or coarser). DO NOT USE steel shot or non-angular media. For **steel** surfaces in atmospheric service, blast to a Commercial Blast (SSPC-SP6; NACE 3; SA 2). Acid etching or chemical cleaning methods may be appropriate for certain substrates. For **top coating** over primer or base coat, apply within recoat window of the primer or base coat. Otherwise, it may be necessary to roughen the base coat using sandpaper.
- 3) See Madison Application Instructions for details.

B. APPLICATION OF COATING

- 1) Stir thoroughly.
- 2) Flexcel Precatalyzed may be applied by any conventional means - roller, brush or a single component airless spray. The viscosity is paint-like. When spraying, start with a tip in the .020" range and a medium fan. For thinning use only Madison VR-1 Viscosity Reducer. Cure-to-touch time is approximately four hours and cure-to-handle time is 6-12 hours depending on the temperature. Surface may remain tacky for 24 hours or more; if this presents a problem, washing of the surface with soapy water will reduce tackiness.
- 3) For atmospheric service, apply two coats of 8 to 10 wet mils (6 to 7 dry mils) each. For immersion service apply two coats of 12 to 15 wet mils (app. 10 dry mils) each.
- 4) Recoat within 48 hours.

C. CLEAN-UP AND STORAGE

- 1) This material will react with humidity and moisture. Keep containers tightly sealed and store upside down. Avoid dropping or subjecting the material to strong force. For clean-up, use Madison VR-3 Viscosity Reducer, M.E.K. or a 50:50 blend of M.E.K. and Xylol. Other solvents may react with product.
- 2) Store between 10°C(50°F) and 27°C(80°F). DO NOT FREEZE. Use product within 6 months of receiving.

HEALTH AND SAFETY

Flexcel PreCatalyzed might build up gas over time. To avoid any sudden burst of gas, open container carefully, thus allowing the gas to escape slowly. Avoid dropping or subjecting the material to strong force. Flexcel PreCatalyzed is intended for industrial use only. It contains no monomeric isocyanates but may nevertheless cause respiratory distress in some people. Provide ample ventilation. Wear a fresh air respirator when using in confined areas or when spraying. Wear rubber gloves, safety goggles and protective clothing. If swallowed, DO NOT induce vomiting as this will cause additional throat irritation; contact physician. If splashed on skin, remove immediately with rubbing alcohol and then wash with soap and water. If splashed in eyes, wash liberally with clean water and contact physician; temporary irritation of eyes may last several days. See MSDS for more information. The finished product is completely inert.

LIMITED TWO YEAR WARRANTY

Madison will replace any product which, in service for which it is suitable, fails to meet specifications within two years of sale and which is proven to be defective when applied according to instructions by a Madison Approved Applicator or Certified OEM Applicator. Madison accepts no responsibility or liability for any other loss, claim, damage, injury or expense, direct or consequential, in contract or negligence. This product replacement warranty is in lieu of any other right, warranty, guarantee or condition, statutory or otherwise, expressed or implied, whether as to fitness for a particular purpose or as to merchantable quality or otherwise.

The information contained herein is believed to be accurate as of the date of publication. Madison reserves the right to change product specifications without notice.

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