



CHEMPRUF 121

DESCRIPTION

CHEMPRUF 121 is a **novolac epoxy** glass flake coating system which may be brush or roller applied. The random layers of glass flake reinforce the coating for resistance to physical stress attributable to thermal cycling. CHEMPRUF 121 provides a durable coating that protects concrete and steel surfaces from corrosion.

The CHEMPRUF 121 is designed for primary or secondary containment applications for tanks, containment dikes, structural steel and floors. CHEMPRUF 121 may be used as a finisher coating for ChemPruf 2211 Lining Systems or as a membrane in conjunction with chemically resistant brick sheathing.

CHEMICAL RESISTANCE

The CHEMPRUF 121 is resistant to many non-oxidizing acids, such as 98% sulfuric acid, 30% nitric acid and 30% chromic acid, alkalies, salt solutions and solvents, such as benzene, toluene and xylene. Refer to the CHEMPRUF 100 SERIES Chemical Resistance Chart, 4-100, for specific information.

ChemPruf 121 is a 20 mil (0.51 mm.) to 50 mil (1.27 mm.) system. The system consists of a ChemPruf E Primer and a minimum of two coats of ChemPruf 121. The thickness per coat and number of coats applied are based on application method. System thickness, as recommended by ATLAS, is based on service conditions.

CHEMPRUF 121 Consists of: PRIMER

ChemPruf E Primer, a two-component, moisture-tolerant, brush or roller applied, solvent free penetrating primer.

CHEMPRUF 121

ChemPruf 121, a two-component, glass flake filled novolac epoxy resin coating.

AVAILABLE COLORS

ChemPruf 121 is available in white and gray.

ADDITIONAL INFORMATION

For specific information pertaining to Surface Preparation, Packaging or Mixing and Application, refer to the following ATLAS literature:

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Tensile Strength, 7 days @ 77°F (25°C)	ASTM D638	3,000 psi. (20.7 MPa)
Compressive Strength, 7 days @ 77°F (25°C)	ASTM C579	15,000 psi. (103 MPa)
Flexural Strength, 7 days @ 77°F (25°C)	ASTM C580	5,700 psi. (39.3 MPa)
Heat Deflection Temperature	ASTM D648	115°F (46°C)
Temperature Resistance Immersion Continual, °F (°C) Immersion Intermittent, °F (°C) Dry Heat, °F (°C)		120°F (49°C) 150°F (66°C) 275°F (135°C)
Hardness, Shore D-2		80 to 85
Cure Rate @ 77°F (25°C), Max. Chemical Resistance		7 days

- Surface Preparation Data Sheet (PS-30)
- ChemPruf 121 Installation Instructions (I-4-121)
- Control Joint & Structural Crack Drawing (4-3003DG)
- Horizontal / Vertical Transition Drawing (4-3004DG)
- Pipe Outlets Drawing (4-3005DG)

SURFACE PREPARATION

The substrate must be structurally sound, clean, dry and free of all contaminants, such as sealers, curing compounds, coatings, oil, dirt, dust and water. Previously applied coatings or paint must be removed.

Concrete: The prepared concrete substrate shall have a minimum tensile strength of 250 psi. (1.72 MPa). Concrete surface must be sufficiently cured and comply with moisture testing as prescribed by ACI Test Method 515 R-16 "Dryness of Surface". Concrete surfaces should be grit blasted to a finish similar to the profile of 100 to 120 grit sandpaper.

Carbon Steel: Metal surfaces should be grit blasted to a SSPC-SP5 or NACE #1 white metal blast cleaned surface finish. Profile height must be 3 (0.076 mm.) to 4 mils (0.102 mm.).

TEMPERATURE DURING APPLICATION

Store all materials referred to in this Data Sheet at 70°F (21°C) to 80°F (27°C) for 24 hours prior to use. Minimum temperature for installation is 65°F (18°C). Do not apply when the relative humidity is greater than 75% or the substrate temperature is less than 5°F (3°C) above the dew point.

APPLICATION

1. Brush or roll apply ChemPruf E Primer.
2. Apply one coat of ChemPruf 121 by brush or roller to a WFT of 10 mil (0.25 mm.) to 25 mil (0.64 mm.). Allow to harden.
3. Apply a second and additional coats of ChemPruf 121 as described in Step (2.). More than two coats may be required based on the method of application and system thickness.

	Application WFT per Coat	
	Horizontal	Vertical
Brush	10 to 20 mils	10 to 20 mils
Roller	10 to 20 mils	8 to 15 mils

Protect uncured primer and ChemPruf 121 from moisture contamination until minimum cure time is attained.

INSPECTION

1. Inspect ChemPruf 121 for imperfections after the first coat has hardened. Repair defects and imperfections prior to application of successive coats.
2. When specified or required, spark test for pinholes using 100 volts per mil (0.025 mm.) of lining thickness. Spark testing of ChemPruf 121 applied to concrete substrates requires ChemPruf E Primer with ATLAS[®] Carbon Powder.

MEMBRANE

When the ChemPruf 121 is to be used as a membrane with chemical resistant masonry sheathing, a release agent, such as silicone or paste wax, must be applied to the surface of the lining system. Apply the release agent after the ChemPruf 121 has attained the minimum drying time. The use of a release agent allows the masonry sheathing to move independent of the lining system.

PRODUCT SPECIFICATION

The coating system shall be ChemPruf 121 as manufactured by Atlas Minerals & Chemicals, Inc.

ChemPruf 121, a novolac epoxy resin glass flake filled 20 mil (0.51 mm.) to 50 mil (1.27 mm.) coating system. The system consists of a ChemPruf E Primer and a minimum of two coats of ChemPruf 121. The thickness per coat and number of coats applied are based on application method. System thickness, as recommended by ATLAS, is based on service conditions.

CLEANING OF TOOLS AND EQUIPMENT

Steel wool, soap and warm water will remove the materials referred to in this Data Sheet from mixing tools and equipment if cleaning is done immediately after use. Solvents, such as methyl ethyl ketone, toluene or xylene, will have to be used after the material has begun to harden. Fully hardened material will have to be removed by mechanical means.

Dispose of residues and wastes in accordance with the directions in the Material Safety Data Sheets and government regulations.

STORAGE AND SHELF LIFE

Store all materials in a cool, dry environment. Keep all materials out of direct sunlight and temperatures above 86°F (30°C). Protect from freezing. In unopened original containers, ChemPruf E Primer Resin and Hardener and ChemPruf 121 Resin and Hardener have a shelf life of approximately one year. ATLAS Carbon Powder can be stored indefinitely.

MAINTENANCE

Should coating be damaged, it can be repaired by thoroughly cleaning and reapplying the ChemPruf 121.

PRECAUTIONS

The materials referred to in this Data Sheet are for Industrial Use Only. They contain materials that present handling and potential health hazards. Consult Material Safety Data Sheets and the container labels for complete precautionary information.

TECHNICAL SERVICES

ATLAS maintains a staff of Technical Service Representatives who are available to assist you with the use of ATLAS products. In the event of difficulties with the application of ATLAS materials, the installation should be stopped immediately and ATLAS' Technical Service Department consulted for assistance.

WARRANTY

ATLAS warrants that its products will be free from defects in workmanship and materials under normal use for a period of one (1) year from the date of shipment by ATLAS (provided the products are installed before the expiration of the shelf life). THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR THE PURPOSE FOR THIS PRODUCT WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ATLAS' LIABILITY FOR ALLEGED BREACH OF THIS WARRANTY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT (BUT NOT INCLUDING REMOVAL OF THE DEFECTIVE PRODUCT OR INSTALLATION OF REPLACEMENT PRODUCTS). ATLAS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES DURING THE WARRANTY PERIOD OR THEREAFTER. **ATLAS' WARRANTY IS VOIDED IF PAYMENT FOR PRODUCT IS NOT RECEIVED IN FULL.**

Note: Atlas makes it a practice to continuously update and enhance our CCM (Corrosion Resistant Construction Materials) products. This may result in slight discrepancies between our printed Data Sheets and the current version. For the most recent version of any Data Sheet, please visit our Web site at www.atlasmin.com