



## TECHNICAL DATA SHEET

### URALITE FH-1272A & FH-1272B

### ELECTRICAL PROTECTIVE COATING

#### DESCRIPTION

URALITE FH1272 is a two-component, non-toxic, thermosetting, polyurethane film coating system that may be mixed to give a high solids, low viscosity liquid. The pot life is approximately 8 hours at room temperature. The cured film offers excellent resistance to water and many solvents.

FH1272 conforms to Raytheon's spec HMS #16-2148 Rev. K, Type II, Class 1, Grade A, Rev F as a high solids, unaccelerated cure, two component material.

FH1272 Part A component is a solution of a polymeric polyol with suitable additives to provide fast cure, good wettability of surfaces and bubble release. The coating is opaque gray in color.

FH1272 Part B component contains a high molecular weight polyisocyanate with very little excess diisocyanate present.

#### TYPICAL PHYSICAL PROPERTIES AND GENERAL INFORMATION

Property	Part A	Part B	Blend
BLENDING RATIO BY WEIGHT	100	42.4	
COLOR	GRAY	COLORLESS	GRAY
COLOR MODIFIER			LIGHT
DENSITY, ASTM D0792, WEIGHT PER U.S. GALLON (lb-mass/gal)	12.3	9.4	
HARDNESS DESCRIPTION (SWARD)			60%
ODOR	ESTER-LIKE	SOLVENT	
SHELF LIFE (month)	9	12	
SOLID CONTENT (NON-VOLATILES), TMWB052, SOLIDS (percent)	88	60	70
SPECIFIC GRAVITY, D792/D1475, SPECIFIC GRAVITY	1.5	1.13	
VISCOSITY (TMTS001 (25°C)) (cP)	93,000	300	3,000

#### ADDITIONAL INFORMATION

Air Dry Set to Touch, 60°C	2 hours
Solvent System	PM Acetate, Toluene
Dielectric Strength	618 v/mil
Dielectric Constant at 1 MHz	3.55
Dissipation Factor at 1 MHz	0.01
Volume Resistivity	1.22x10 <sup>16</sup> ohms-cm
Surface Resistivity	1.42x10 <sup>17</sup> ohms
Flexibility (Impact)	60%
Chemical Resistance – Water	Excellent
Chemical Resistance – Solvent	Excellent

## **SHELF LIFE and STORAGE**

Shelf life is from date of shipment unless indicated otherwise. Store materials in a cool, dry place off the floor on a pallet or shelf between 16-32°C (60-90°F). Note: the Part A may settle over time; stir before use.

## **PREPARATION OF SURFACES**

Prior to application of coating all surfaces must be cleaned to remove all contaminants. Fluxes, oils, loose solder, dust and fingerprints must be removed by appropriate solvent media. The effect of the various solvents employed on any mounted components must be considered as well as the possible effects of the solvent in the Uralite FH-1272 on the bare components. If labels or other markings are affected, they should receive a preliminary coating of an epoxy or other specially-formulated compound as protection. After cleaning the device is given a final rinse in anhydrous isopropyl alcohol and placed in a circulating hot air oven for about one hour to dry. The temperature of the oven will have to be determined as not being deleterious to the components.

## **MIXING**

Part A, (the polyol component) is to be completely mixed with Part B (the clear isocyanate component) by either manual stirring or with a power mixer. In either case a minimum of air should be entrapped. By using 100 ± 0.05% Part A by weight, to 42.4 ± 0.05% Part B by weight, a flexible, tough coating can be produced.

## **CAUTION**

Both Part A and Part B contain reactive chemicals which are affected deleteriously by water, moisture from the air, alcohol, amines, and many other materials. After pouring, the threads of the container tops should be wiped clean, and with a thin polyethylene sheet underneath, the caps should be screwed down tight. Failure to do this can cause problems with the coating or great difficulty in removing the cap from the container with the Part B component because of the adhesive nature of the contents.

## **APPLICATION**

The solution will contain about 70% solids and is suitable for brush, dip or spray application. The coating should be used within eight hours of preparation and unused material discarded after that period. Do not return any to containers. If lower viscosity is required the solution may be reduced with anhydrous toluene or xylene.

## **URALITE FH-1272 CURE**

Near ultimate physical properties are normally attained after three (3) days at room temperature 25°C (77°F). Curing of URALITE FH-1272 may be accelerated by heating for 2 to 3 hours at 79°C (175°F).

## **CLEAN UP**

Equipment, brushes, and spillage can be cleaned promptly after use with a mixture of anhydrous isopropyl alcohol and acetone that should be discarded after each use. Spillage on the person or clothing should be first cleaned up with isopropyl alcohol followed by some other appropriate solvent.

## REPAIR

Components can be removed without removing the coating by using a soldering iron. Replacements can also be made by soldering through the coating which will melt back cleanly. Exposed areas can then be cleaned and recoated locally with a brush application if desired.

## HANDLING PRECAUTIONS

**CAUTION: FOR INDUSTRIAL USE ONLY. KEEP AWAY FROM CHILDREN.** The wearing of gloves is recommended to avoid skin contact. Soiled clothing should be removed and cleaned before wearing again. Eye protection should also be worn. Adequate ventilation should be provided to prevent contact with vapors. Do not ingest.

## EMERGENCY AND FIRST AID PROCEDURES

**Skin Contact:** Wash with mild soap and water.

**Eye Contact:** Flush thoroughly with clean, cool water and obtain a physician's care.

**Inhalation:** If overexposure to vapors results in discomfort, remove the affected person to clean, fresh air. If symptoms persist, contact a physician for additional care and treatment.

**Ingestion:** Give copious quantities of water or milk promptly and seek medical aid immediately. Induce vomiting only on the advice of a physician.

For more information, see MSDS before use.

## EXPORT ADVICE

This product is a Defense Article as defined in the International Traffic in Arms Regulations (Volume 22 Code of Federal Regulations Parts 120-130). As such, any export of this product or items containing this product may be prohibited by or require a license issued by the U.S. Department of State, Directorate of Defense Trade Controls. Contact H.B. Fuller Company by phone at 651-236-5858 or by email at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) for further information.

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