

Description

CW 3705 is a one-part, solvent-free, conductive epoxy. Its typical applications include conductive gap filling and sealing, where high conductivity is required.

Features

- Recommended substrates: aluminum, PI
- Low viscosity
- High conductivity
- Flexible and tack free when cured

Uncured Properties

Chemical Type	Epoxy
Appearance	Silver
Viscosity @ 25°C [mPa·s] Brookfield DV2T, spindle 14# @ 20rpm	3,600
Filler Content	70%
Thixotropic Index @ 2rpm/20rpm	4.9
Specific Gravity [g/cm³]	1.5
Shelf Life @ -40±5°C [months]	6
Shelf Life @ 25°C [hrs]	24

Curing Condition

Thermal Curing @ 85°C [mins]	60
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Cured Properties

Hardness [Shore A] ASTM D2240	92
Shear Strength [MPa] SUS to SUS ASTM D1002	10
Break Elongation [%] ASTM D638	5
Resistivity [$\Omega \cdot \text{cm}$] ASTM B193-02	$<1.0 \times 10^{-4}$
Water Absorption [%] ASTM D570	0.2

Directions for Use

1. Surface Treatment

Surfaces to be bonded should be free of dust, oil, grease or any other contaminants in order to achieve a reproducible bond. For slightly contaminated surfaces, it is sufficient to wipe with isopropanol or ethanol. Substrates with a low surface energy (e.g. polyethylene, polypropylene, Teflon) need to be pre-treated physically (e.g. atmospheric plasma or corona) in order to achieve sufficient adhesion.

2. Application

Products are supplied ready for use. Depending on package type, they can be dosed manually, semi-automatically or fully-automatically with a dosage apparatus. With automatic dispensing using a cartridge, the adhesive is conveyed via pressure and a piston rod to a dispense valve. With bottles, the adhesive is conveyed using a pump.

After application, it is recommended that the two substrates be adjoined immediately as it is possible the curing process will begin with select products under ambient conditions.

3. Suggested working temperature range is -40 to 180°C.

Storage

Maximum shelf life may be obtained when product is stored in a cool, dry location at a temperature between **-40±5°C**.

TO PREVENT CONTAMINATION OF UNUSED PRODUCT, DO NOT RETURN ANY PRODUCT TO ITS ORIGINAL CONTAINER.

Allow the product to thaw for two hours after it is removed from the refrigerator prior to use. It is best

practice to wipe away any moisture on the surface of the syringe with cleanroom wipes.

Materials Handling

Refer to the Material Safety Data Sheet (MSDS) for this product.

Disclaimer

The information provided here including the recommendations for use and application of the product is based on internal laboratory test conditions and should only be used as a reference. CollTech does not assume responsibility for the test or performance results obtained by the user. It is the responsibility of the user to perform their own evaluations to confirm whether this product is suitable for their application.