

Description

PW 1516HV is a one-part UV and thermal dual curing adhesive requiring low energy and low temperature. It is ideal for camera bonding and IR filter applications.

Features

- Recommended substrates: PC, PMMA
- Low UV energy and low temperature for curing
- Moisture and temperature resistance
- Excellent mechanical shock resistance
- Easy to apply via an automatic or manual dispensing process

Uncured Properties

Chemical Type	Modified Acrylate
Appearance	Transparent /Translucent
Viscosity @ 25°C [mPa·s] Brookfield DV2T, spindle 14# @ 20rpm	16,500
Specific Gravity [g/cm³]	~1.1
Shelf life @ -40±5°C [months]	6

Curing Conditions

UV Light Curing [secs] 100 mW/cm ² , 395nm UV Lamp	5-10
Depth of Cure [mm]	3
Heat Curing @ 80°C [mins]	30

Cured Properties

Hardness [Shore D] ASTM D2240	72
Lap Shear Strength [MPa] PC/PMMA ASTM D1002	>10
Tensile Strength [MPa] ASTM D638	9
Elongation at Break [%] ASTM D638	70

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. Any contamination involving alkaline substances and amines is to be strictly avoided as these can impede curing. 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. For bottles, the adhesive is conveyed using a pump.

A variety of valves are available to adjust for the desired dosing accuracy and speed. Please consult our Application Engineering department for recommendations on the dosage amount to be used for your application.

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 120°C.

Storage

Maximum shelf life may be obtained when product is stored in a cool, dry location at a temperature of **-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.

Available Packages

30cc and 55cc syringe packages are available.

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.