

### Description

CT 2288 is a one-part, solvent-free, UV and thermal dual curing adhesive based on acrylate hybrid system. It is ideal for sealing, potting and bonding of plastic, glass, metal and FR4, as well as protecting sensitive components against mechanical and environmental stress on PCB/FPCB.

### Features

- Recommended substrates: FPC, PCB, PC, glass, metal
- UV and thermal curing hybrid system with instantaneous reaction upon UV irradiation
- Excellent resistance against moisture, weathering, as well as thermal shock and cycling loads
- Low shrinkage and stress when cured
- Thixotropic adhesive with good controlled flowability

### Uncured Properties

<b>Chemical Type</b>	Acrylate
<b>Appearance</b>	Translucent
<b>Viscosity @ 25°C [mPa·s]</b> Brookfield DV2T, spindle 14# @ 20rpm	9,000-13,000
<b>Thixotropic Index @ 2rpm/20rpm</b>	4.8
<b>Specific Gravity [g/cm<sup>3</sup>]</b>	~1.1
<b>Shelf Life @ 2-8°C [months]</b>	6
<b>Pot Life @ 25°C [hrs]</b>	48

### Curing Conditions

<b>UV Curing Fusion D-bulb, UVA</b> 100mW/cm <sup>2</sup> , 1mm thickness [secs]	30±5
<b>Depth of Cure [mm]</b>	1
<b>Thermal Curing @ 130°C [mins]</b>	15
<b>@ 150°C [mins]</b>	10

### Cured Properties

<b>Hardness [Shore D]</b> ASTM D2240	60
<b>Lap Shear Strength [MPa]</b> PC/FR4 ASTM D1002	14
<b>Young's Modulus [MPa]</b> METTLER DMA	262
<b>Tensile Strength [MPa]</b> ASTM D638	14
<b>Elongation at Break [%]</b> ASTM D638	120
<b>Glass Transition Temperature (Tg) [°C]</b> ISO 11359	68
<b>Coefficient of Thermal Expansion (CTE) [ppm]</b> ASTM D696 CTE below Tg CTE above Tg	86 160
<b>Surface Resistivity [ohm·cm]</b> ASTM D257	1.0×10 <sup>13</sup>
<b>Volume Resistivity [ohm·cm]</b> ASTM D257	1.0×10 <sup>13</sup>
<b>Dielectric Strength [V/mil]</b> ASTM D149	320
<b>Water Absorption [%]</b> ASTM D570	0.1

### 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.

## Storage

Maximum shelf life may be obtained when product is stored in a cool, dry location at a temperature between **2°C to 8°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.*