

# HANAREY CSA6250 Product Data Sheet

Sep 2024

Hanarey CSA6250 is a one-component heat epoxy adhesive. It cures under low-temperature heating conditions. It exhibits excellent bonding strength to various substrates, including glass, metal, and plastic. The product has passed the ISO 10993 biocompatibility series of tests, so it could be used for general bonding applications of medical devices.

## UNCURED PROPERTIES \*#

Property	Value	Test Method
Chemical Class	Epoxy	N/A
Appearance	Black Paste	N/A
Viscosity, cP (Nominal)	83,000	HSTM502
Thixotropic Ratio, %	6.1	HSTM502
Density, g/ml	1.63	ASTM D1875
Shelf Life from Date of Manufacture	180 Days	N/A

## CURED PROPERTIES \*#

Property	Value	Test Method
Hardness	D87	ASTM D2240
Volumetric Shrinkage, %	3.33	N/A
CTE $\alpha_1$ , $\mu\text{m}/\text{m}/^\circ\text{C}$	43	ASTM E831
CTE $\alpha_2$ , $\mu\text{m}/\text{m}/^\circ\text{C}$	151	ASTM E831
Glass Transition Tg, $^\circ\text{C}$	47	ASTM D5418
Storage Modulus, MPa	3,542	ASTM D5418
Tensile at Break, MPa	34	ASTM D638
Elongation at Break, %	3.7	ASTM D638
Water Absorption, % (25 $^\circ\text{C}$ , 24 h)	0.17	ASTM D570
Boiling Water Absorption, % (2 h)	1.0	ASTM D570

## AHESION \*#

Property	Shear Strength, MPa
SS-SS	25
PA9T-PA9T	10
SS-GL	33
LCP-GL	7
PCB-PA9T	9.2
PA9T-PA9T, 85 $^\circ\text{C}$ / 85% RH, 240 h	8.1
PA9T-PA9T, -40 $^\circ\text{C}$ ~85 $^\circ\text{C}$ , 120 cycles	9.3

\* Not Specifications  
 N/A Not Applicable  
 # Measured after heat cure at 80 $^\circ\text{C}$  for 30 mins  
 HSTM HSTM refers to Hanarey Standard Test Method

## DIRECTIONS FOR USE

Please take out the product and allow it to return to room temperature before use. Do not open the packaging until it has returned to room temperature. If the product is not used up, please seal it and store it in the refrigerator. The pot life of this product is 21 days when stored at 25 $^\circ\text{C}$  (77 $^\circ\text{F}$ ), and relative humidity <60%.

## CURING GUIDELINES

Heat cure: 80 $^\circ\text{C}$  for 30 mins

The above cure profiles are guideline recommendations. Cure conditions may vary based on customers' curing equipment, oven loading and actual oven temperatures. Although Hanarey Application Engineering can provide technical support and assist with process development, each customer ultimately must determine and qualify the appropriate curing parameters required for their unique application.

## TRANSPORTATION, STORAGE, AND SHELF LIFE

Do not crush and throw to avoid leakage during transportation. It is verified that the product is exposed to ambient temperature for a short time during transportation will not affect the product performance. This material shelf life noted on page 1 of this document when stored between -25°C (-13°F) and -15°C (5°F) in the original, unopened container.

## CLEAN UP

Uncured Hanarey materials may be removed from dispensing components and parts with non-alcoholic solvents. Cured material will be impervious to many solvents and difficult to remove. Cleanup of cured material may require mechanical methods such as ultrasonic bath, water, jet, vacuum tweezers, air knife, and/or warming to aid in the removal.

## GENERAL INFORMATION

This product is intended for industrial use only. Keep out of the reach of children. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wear impervious gloves. Repeated or continuous skin contact with uncured material may cause irritation. Remove material from the skin with soap and water. Never use organic solvents to remove material from the skin and eyes. For more information on the safe handling of this material, please refer to the Safety Data Sheet before use.

Hanarey does not guarantee that this product's properties are suitable for the user's intended purpose. The contents of this document are subject to change. Unless specifically agreed to in writing, Hanarey shall have no obligation to notify the user about any change to its content.

Data Collected: Aug 2024

Date of Revision: 24 Sep 2024