

# HANAREY CSE6587 Product Data Sheet

Sep 2024

Hanarey CSE6587 is a white, no solvent added, high-performance, single-component epoxy adhesive that requires heat curing. It exhibits excellent bonding strength to various substrates, including metal and plastic, while featuring high glass transition temperature (Tg), low thermal expansion coefficient, and good temperature resistance and impact resistance. Additionally, it demonstrates good storage stability. This product complies with RoHS 2.0 directives and REACH regulations, has low halogen content, meets environmental protection requirements, and does not pose known risks or hazards to human health under normal conditions.

## UNCURED PROPERTIES \*

Property	Value	Test Method
Chemical Class	Epoxy	N/A
Appearance	White Paste	N/A
Viscosity, cP (Nominal)	35,000	HSTM502
Density, g/ml	1.50	ASTM D1875
Shelf Life from Date of Manufacture	180 Days	N/A

## CURED PROPERTIES \*\*

Property	Value	Test Method
Hardness	D90	ASTM D2240
Volumetric Shrinkage, %	1.77	N/A
CTE $\alpha_1$ , $\mu\text{m}/\text{m}/^\circ\text{C}$	36	ASTM E831
CTE $\alpha_2$ , $\mu\text{m}/\text{m}/^\circ\text{C}$	120	ASTM E831
Glass Transition Tg, $^\circ\text{C}$	138	ASTM D5418
Storage Modulus, MPa	3,962	ASTM D5418
Tensile at Break, MPa	59	ASTM D638
Elongation at Break, %	1.7	ASTM D638
Water Absorption, % (25 $^\circ\text{C}$ , 24 h)	0.08	ASTM D570
Boiling Water Absorption, % (2 h)	0.4	ASTM D570

## ELECTRICAL PROPERTIES \*\*

Property	Value	Test Method
Dielectric Constant (1 MHz)	4.82	ASTM D150
Dissipation (1 MHz)	0.0212	ASTM D150
Dielectric Breakdown Voltage, kV/mm	37.88	HSTM D149
Volume Resistivity, ohm-cm	$5.39 \times 10^{16}$	ASTM D257
Surface Resistivity, ohm	$4.64 \times 10^{16}$	ASTM D257

## ADHESION \*\*

Substrate	Shear Strength, MPa
PA9T-PA9T	10
PCB-PCB	21
SS-SS	34
AL-AL	29

\* N/A Not Specifications  
 # Not Applicable  
 # Measured after heat cure at 120 $^\circ\text{C}$  for 60 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.

## CURING GUIDELINES

Heat cure: 120 $^\circ\text{C}$  for 60 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 0°C (32°F) and 5°C (41°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.

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