



STYCAST 2741 W1 - Catalyst 15

April 2010

PRODUCT DESCRIPTION

STYCAST 2741 W1 - Catalyst 15 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Appearance (Catalyst)	Black
Components	Two component
Mix Ratio, by weight - Resin : Hardener	100 : 150
Flexible Formula	
Mix Ratio, by weight - Resin : Hardener	100 : 100:
Semi-rigid Formula	
Mix Ratio, by weight - Resin : Hardener	100 : 50
Rigid Formula	
Product Benefits	• Controllable flexibility • Crack-resistant at low temperatures
Application	Encapsulant
Cure	Room Temperature or Heat Cure
Operating Temperature	-70 to 125 °C
Typical Assembly Applications	Electronic embedment and Sealing or cementing of metals, ceramics and plastics

STYCAST 2741 W1 - Catalyst 15 epoxy encapsulant and sealing compound offers good low temperature flexibility that will not crack when exposed to -55°C, even though it may be applied in a thin coat over sharp metal inserts.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties 2741 W1

Specific Gravity	1.18 to 1.2
Shelf Life @ 18 to 25°C, year	1
Flash Point - See MSDS	

Mixed Properties

Mixed Viscosity @ 25°C, mPa·s (cP)	20,000 to 40,000
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

8 to 24 hours @ 25°C or
2 hours @ 65°C

Weight Loss on Cure

Weight Loss on Cure, In a vacuum of 0.1MPa after 14 hours at 125°C, %	0.1
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The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties:

Coefficient of Thermal Expansion ISO 11359-2, K ⁻¹	16×10 ⁻⁵
Coefficient of Thermal Conductivity, W/(m·K)	0.33
Flexural Modulus, ASTM D790	N/mm ² (psi) 700 to 800 (101,500 to 116,000)
Flexural strength, ASTM D790	N/mm ² (psi) 40 (5,800)
Moisture Absorption, 24 hrs @ 25°C, %	≤0.2
Izod Impact, J/cm	4.8
Linear Shrinkage on Cure, %	≤0.2

Electrical Properties:

Volume Resistivity, IEC 60093, ohm-cm	≥1×10 ¹³
Dielectric Constant / Dissipation Factor, IEC 60250:	
60Hz	4.4 / 0.04
1 kHz	4.1 / 0.04
1 MHz	3.4 / 0.03
Dielectric Strength IEC 60243-1, kV/mm	16

Flexible Formulation

Physical Properties:

Shore Hardness, ISO 868, Durometer A	60
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Semi-rigid Formulation

Physical Properties:

Shore Hardness, ISO 868, Durometer D	50
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Rigid Formulation

Physical Properties:

Shore Hardness, ISO 868, Durometer D	80
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GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

DIRECTIONS FOR USE

1. Mix the entire contents of STYCAST 2741 W1 to a uniform consistency before removing material.
2. Accurately weigh STYCAST 2741 W1 and Catalyst 15 into a clean container in the recommended ratio.
3. Blend them together thoroughly.
4. Pour into mold or container. If necessary, trapped air is readily removed by vacuum evacuation..
5. MOLD RELEASE 122S should be used if piece is later to be removed.
6. NOTE: During storage at room temperature for long periods, it is possible that the viscosity of STYCAST 2741 W1 can increase and may exceed its upper specification limit. The viscosity can be brought back to the normal level by moderate mixing.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 18 to 25 °C

Once opened, containers should be purged with dry nitrogen. Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note

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Reference 0.0