

LOCTITE® EA 3501HT

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PRODUCT DESCRIPTION

LOCTITE® EA 3501HT provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance	Grey paste
Components	One component - requires no mixing
Viscosity	High
Cure	Heat cure
Application	Seam sealing

LOCTITE® EA 3501HT is a one component, heat curing epoxy seam sealant designed for use on primed or bare, oily metal in preparation for high temperature paint bake processing which includes metal pre-treatment, e-coat/primer paint and powder/top-coat stages. This material is compatible with most metal pre-treatment processes and is formulated to maintain its physical properties and performance even after paint bake processes reaching 225°C.

LOCTITE® EA 3501HT is flexible and suitable for use on wide a range of substrate gauges ranging from thin sheet metals to rigid castings and extrusions.

Typical applications include sealing of metal seams between welded/bonded joints, overlap joints, butt joints, and any other visible seam which requires sealing.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 23°C, ASTM D927	1.35
Viscosity @ 25 °C, mPa·s (cP):	
CP25-2, oscillation	480,000
Solids Content, ASTM D2834, %	100
Sag Resistance, SAE J243, mm:	
Vertical Sag Method B	0
Horizontal Sag Method B	0

TYPICAL CURING PERFORMANCE**Cure Cycle**

Typical Cure @ 175°C, minutes	30
Max Cure @ 225°C, minutes	30
Min Cure @ 160°C, minutes	30

TYPICAL PROPERTIES OF CURED MATERIAL

Sample cured 30 minutes @ 175°C

Physical Properties

Shore Hardness, Durometer A	75
Glass Transition Temperature (T _g)°C	30
ISO 11359-2	
Low Temp Mandrel Bend @ -40°C, (SAE J1243 Method B (50mm diameter))	No cracking or adhesion loss
Tensile Modulus, ISO 527-3	N/mm ² 9.7 (psi) (1,401)
Tensile Strength, ISO 37	N/mm ² 2.4 (psi) (348)

Adhesive Properties

Substrate Adhesion, Bead-knife, %:
Oily bare steel 10W-30, Epoxy primer paint >95

Epoxy Primer Valspar, EEY0148/CEC0120, %:
Initial >95

Lap Shear Strength @ 175°C:

Aluminum	N/mm ² 4.1 (psi) (595)
Mild Steel	N/mm ² 3.1 (psi) (446)
Oily Mild Steel	N/mm ² 2.5 (psi) (364)

GENERAL INFORMATION

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

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

Directions for use

1. This product is not frost sensitive.
2. Remove product from refrigeration and allow to reach ambient temperature before use.

Storage

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

Optimal Storage: 2 to 25°C . Storage below 2°C or above 25°C can adversely affect product properties.

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 Henkel Representative.

Product Specifications

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and Certificate

Please contact Henkel representative for related approval or certificate of this product.

Data Ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

Conversions

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

Disclaimer

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