Technical Data Sheet

Loctite® EA 1623986™

Known as Loctite® 1623986™
March 2015

PRODUCT DESCRIPTION

Loctite® EA 1623986™ provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	Transparent
Appearance (Hardener)	Transparent, lump free
Appearance (Mixture)	Transparent
Components	Two component - requires mixing
Mix Ratio, by volume - Resin : Hardener	3 : 1
Mix Ratio, by weight - Resin : Hardener	10 : 2.9
Cure	Room temperature cure after mixing
Application	Bonding

Loctite® EA 1623986™ is a two part, solvent free, liquid and transparent epoxy adhesive. This product will adhere to a wide variety of surfaces including wood, metal, glass, ceramic, GRP and some plastics. It is especially suited for the spiral winding and binding of glass yarns used during the production of reverse osmosis filter elements.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:

Specific Gravity @ 25 °C	1.2
Viscosity, Cone & Plate, Pa·s,	2.3 to 3.5
Flash Point - See SDS	

Hardener:

Specific Gravity @ 25 °C	1.0
Viscosity, Cannon Fenske, ISO 3104, mm² /sec	15 to 30
Flash Point - See SDS	

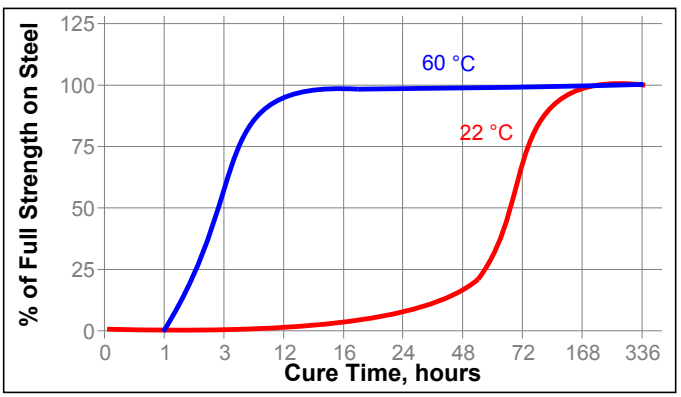
Mixed:

Specific Gravity @ 25 °C	1.1
Gel Time @ 25 °C, seconds	800 to 1,200

TYPICAL CURING PERFORMANCE

Cure Speed vs. Time, Temperature

The rate of cure will depend on the ambient temperature, elevated temperatures may be used to accelerate the cure. The graph below shows shear strength developed with time at various temperatures on grit blasted steel lap shears and tested according to ISO 4587.



TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 7 days @ 22 °C

Lap Shear Strength, ISO 4587:

Steel (grit blasted)	N/mm²	18.4
	(psi)	(2,670)
Steel	N/mm²	14
	(psi)	(2,030)
Aluminum	N/mm²	7.5
	(psi)	(1,090)
Zinc dichromate (Hot Dipped)	N/mm²	10.6
	(psi)	(1,540)
Stainless steel	N/mm²	10.6
	(psi)	(1,540)
Polycarbonate	N/mm²	1.7
	(psi)	(250)
Phenolic	N/mm²	7.7
	(psi)	(1,120)
PVC	N/mm²	2.6
	(psi)	(380)
GRP	N/mm²	4.7
	(psi)	(680)
ABS	N/mm²	2.4
	(psi)	(350)
Glass	N/mm²	5.1
	(psi)	(740)

Wood (Pine)	N/mm²	7.8
	(psi)	(1,130)
Wood (Mahogany)	N/mm²	9.1
	(psi)	(1,320)
Wood (Teak)	N/mm²	9.8
	(psi)	(1,420)

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.

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some cases these aqueous washes can affect the cure and performance of the adhesive.

Directions for use:

1. For best performance part surfaces should be clean and free of grease.
2. For high strength structural bonds, remove surface contaminants such as paint, oxide films, oils, dust, mold release agents and all other surface contaminants.
3. Mix thoroughly by weight or volume in the proportions specified in Product Description section. Mix vigorously, approximately 15 seconds after uniform color is obtained.
4. Do not mix quantities greater than 4 kg as excessive heat build-up can occur. Mixing smaller quantities will minimise the heat build-up.
5. Apply the adhesive as quickly as possible after mixing to one surface to be joined. For maximum bond strength apply adhesive evenly to both surfaces. Parts should be assembled immediately after mixed adhesive has been applied.
6. Keep assembled parts from moving during cure. The bond should be allowed to develop full strength before subjecting to any service load.
7. Excess uncured adhesive can be wiped away with organic solvent (e.g. Acetone).
8. After use and before adhesive hardens mixing and dispensing equipment should be cleaned with hot soapy water.

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.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.
Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °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 Technical Service Center or Customer Service Representative.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Reference 0.2