

TEROSON EP 7999

February 2014

PRODUCT DESCRIPTION

Technology	Epoxy Resin
Product Type	Structural Adhesive

TEROSON EP 7999 is a heat curing metal-adhesive based on special epoxy resins with good adhesion to oily metal surfaces, such as bare metal, zinc coated surfaces and aluminum alloys. It demonstrates high strength on many substrates and good corrosion protection.

APPLICATION AREAS

TEROSON EP 7999 is used in the automotive body shop for structural and hem flange bonding.

TECHNICAL DATA
(Typical Test Results)

Uncured	
Colour	yellow
Density	approx. 1.55 g/cm ³
Consistency	pasty
Solids	> 99 %
Viscosity (Severs)	approx. 125 g/min
Nozzle	3 mm
Pressure	5 bar
Temperature	30 °C
Cured (25min. at 160°C)	
Shear strength (DIN EN 1465)	approx. 12 MPa
bonding area	25 x 12 mm
layer thickness	0.2 mm
substrate	0.75 mm HDG
Corrosion resistance	
salt spray test	no loss of adhesion,
(35°C, salt solution 5%,	no corrosion
1,000 hours)	
In service temperature range	-40 to 90 °C

PRELIMINARY STATEMENT

Prior to application it is necessary to read the **Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed.

APPLICATION

TEROSON EP 7999 is applied from pails or drums using high pressure pumps with a compression ratio minimum 50:1. For the best application the use of volume controlled dispensers is preferred. The heated application pistol can be used either manually or on a fixed jig. More commonly is attached to an automatic application system (robot, CNC). It is recommended to switch off heating during a shutdown of more than 1 hour. The pressure should be switched off after 15 minutes of non-production. Independent heating circuits should have the lowest temperature at the follower plate and the highest temperature at the application nozzle. To ensure an optimal wetting to the substrate TEROSON EP 7999 should be applied at elevated temperatures. The material is applied directly to oily sheet metal no more than 3 g/m². If required, we will provide you with the additional information on suitable application equipment.

Recommended material temperature:

Follower plate and pump:	25 to 35 °C
Temperature at the nozzle:	35 to 55 °C

CURING

TEROSON EP 7999 is cured while passing the EC oven, e.g. 15 minutes at 175 °C. The minimum curing cycle is 15 min at 170 °C. These are effective metal temperatures.

CLEANING

Fresh, uncured material can be removed with the aid of ethylacetate or gasoline. Cured adhesive can only be removed mechanically.

STORAGE

Frost sensitive	no
Recommended storage temperature	5 to 25 °C
Shelf life	6 months

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The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing

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