

TEROSON® EP 5065 US

September 2024

Product description

TEROSON® EP 5065 US provides the following product characteristics:

Application	Structural bonding
Product type	Epoxy
Technology	2K epoxy
Additional information	<ul style="list-style-type: none"> Material 2-component Structural bonding Solvent free Impact-resistant

TEROSON® EP 5065 US is a solvent free, two component adhesives, based on Epoxy resins. It has high initial strength both at high and low temperatures (-40°C - 80°C). Curing can be obtained with both low and high temperature. The cured adhesive film is hard, but not brittle.

Application areas:

TEROSON® EP 5065 US is mainly used in car repair for structural bonding of metals when requirements in terms of crash behaviors are high (e.g., car body steel with or without e-coat, galvanized steel, and aluminum). Coated surfaces are protected against corrosion. Curing can take place at room temperature or be accelerated using additional heat, e.g., IR radiator. The assembly bonded shall be designed so that the bonded surface or seams are only subjected to tensile or shear forces, but not to peel forces. It is recommended that bonding should be done with single overlaps. Uncured adhesive can be spot-welded.

Technical data

Part A	
Base	Epoxy resin
Color	Black
Density, g/ml	Approx. 1.1
Viscosity, Pa.s	Approx. 23
Measuring equipment	DHR-2 Rheometer
Measuring system	Plate/Plate Ø 25 mm
Cross head peel speed, s ⁻¹	10
Temperature, °C	23
Part B	
Base	Amine
Color	Grey green
Density, g/ml	Approx. 1.0
Viscosity, Pa.s	Approx. 12
Mixing ratio, A:B	200:100

Mixture (Component A+B)

Color	Black
Odor	Almost without odor
Pot life, (23°C, 50% rh), min(s)	Approx. 60 after 8 hours (23°C, 50% rh)
Initial strength	after approx. 15 minutes (80°C object temperature)
Curing times	
Final strength	approx. 2 d at 23°C or 30 minutes at 80°C object temperature
Shear strength (DIN EN 1465), MPa	
Steel, 0.2 mm thick layer (7 d at 23°C, 50% rh) at 23°C	>25
Peel test, (DIN EN ISO 11339)	
Steel, 0.2mm thick layer (7 d at 23°C, 50% rh), N/mm	>8
E-Modulus, MPa	>1600

Directions for use

Preliminary statement:

Prior to use it is necessary to read the **Material 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. Please also refer to the local safety instructions and contact Henkel for analytical support.

Application:

TEROSON® EP 5065 US is processed from a 2:1 cartridge. Only use cartridge pistols that are equipped with a piston rod. During the storage time and shipment, a crystallization of the resin may occur. By heating the adhesive above 60°C for about 60 minutes this physical process is reversible. All properties stay afterwards on the same level. It is recommended that the adhesive should be used with a minimum temperature of 15°C. Prior to screwing the static mixer, a small amount of the material should be pressed out to ensure that both components are passed on simultaneously. Now, the static mixer is screwed onto it. To ensure proper mixing, discard the first approx. 4 cm of the adhesive bead. After mixing, the adhesive is ready for use and must be processed within 1hour since viscosity increases when curing starts. The processing time depends on the temperature. To avoid the bonded parts being displaced, it is recommended that they should always be fixed.

Curing:

The bonded parts, which have been fixed by means of a slight pressure applied to them, can be cured at room temperature or higher. They can be painted over after having reached their final strength. If suitable equipment for curing at higher temperature (infrared radiator, paint cabin that can be heated to 40 - 80°C or other equipment) is available, this should always be given preference over curing at room temperature for the following reasons:

- Shorter curing time; further processing or treatment is possible after only 2 hours approx.
- Higher strength is achieved - Higher resistance of the adhesive bond against chemical loads.

Cleaning:

Fresh, uncured material can be removed with TEROSON® VR 10. Cured adhesive can only be removed mechanically.

Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:

**Transport Regulations
Hazardous Information
Safety Regulations**

Storage:

Storage conditions	<ul style="list-style-type: none"> • Keep in a cool, well-ventilated area away from heat, sparks, and open flame. • Keep container tightly closed until ready to use. • Isolate from incompatible substances.
Recommended storage temperature, °C	15 to 35
Shelf-life (in unopened original packaging), months	12

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