

Technical data sheet



Product: 110

Manufacturer: HENKEL KGAA

Product group: KLEBSTOFF

Article group: 1-K KLEBSTOFF

Download: 03.05.2025

LOCTITE® ESP110

This data sheet was provided to you by Tewipack Uhl GmbH. The company tewipack Uhl GmbH assumes no responsibility for the topicality and the Accuracy of the information contained. The properties of the products can vary due to various influences such as composition and condition of the Substrate, impurities in or on the substrate, temperature and humidity at the Change storage and environmental conditions during use. Using this product in combination with other material, the customer is responsible for to check through our own tests whether the product is suitable for the planned combination and whether this combination delivers the expected results

Tewipack Uhl GmbH
Industriestraße 15
D-75382 Althengstett

Telephone:
+49(0)7051/9297-0
Fax:
+49(0)7051/9297-99

E-Mail:
info@tewipack.de
Website:
www.tewipack.de

Managing director:
Alexander Uhl,
Michael Uhl
HRB 330424
Amtsgericht
Stuttgart

Bank details:
Sparkasse
Sindelfingen
Pforzheim
Calw
BLZ 666 500
85
Konto 17 787

Commerzbank
Sindelfingen
BLZ 603 400 71
Konto 8 001 166

Vereinigte
Volksbank AG
Böblingen
BLZ 603 900 00
Konto 80 089
003

Postbank
Stuttgart
BLZ 600 100
70
Konto 146
294 708

**LOCTITE[®] ESP110**

October 2007

Description:

Loctite ESP110 is a metal filled, paste adhesive designed to provide maximum resistance to impact, shear, cleavage and tensile loads. The durability, chemical resistance and high temperature performance are extremely good. ESP110 will bond to a wide variety of surfaces, including oily steel, and performance is usually limited by the strength of the adherends themselves. In many applications it can replace traditional fixing techniques to give enhanced appearance and greater design flexibility.

Physical Properties

Colour	Silver
Viscosity (mPa.s)	400,000
Specific Gravity	1.5

Typical Performance

Shear Strength (MPa)-Steel*	30
Coeff. of Thermal Expansion (mm/mm/°C)	45×10^{-6}
Maximum Gap Fill (mm)	4

With joints involving material such as ferrites or SMC bond strengths are generally greater than that of the substrate itself. The bond strengths measured on the more ductile metals, such as copper and its alloys, will be affected by the modulus of the metal and the thickness of the actual components.

Storage:

When stored in the original unopened containers at 5-7°C, the shelf life of this product is 12 months from the date of manufacture.

Service Temperature:

The recommended service temperature range for this product is -40 to +180°C. However higher temperatures may be endured for short periods providing the adhesive is not unduly stressed.

Handling:

Full information can be obtained from the Material Safety Data Sheet (MSDS). Users are reminded that all materials, whether innocuous or not, should be handled according to the principles of good industrial hygiene.

Cure Time at:-	100°C	120°C	150°C	180°C
Minutes* (in an air circulating oven)	240	60	45	20

*The actual cure time for any application is dependent on the time it takes for the adhesive to reach temperature. Larger components, or batch curing, will require a longer warm up time and the cure cycle may be extended. The use of alternative heating methods may also affect the time required to achieve full cure; Hotplates, Infra-Red lamps or Induction heating will generally give a faster cure.

Directions for Use:

Surfaces should be clean, dry and grease free before applying the adhesive. Where ultimate performance is required then the surfaces should be shot blasted, or lightly abraded, in the presence of **Loctite SIP**.

The adhesive should be extruded using a bead diameter that will allow complete coverage of the bond area. Care should be taken not to include, or trap, any air within the joint. Normally it should be applied to only one surface. Assemble the parts and squeeze together with sufficient pressure to ensure the adhesive spreads to cover the entire bond area. Jig the components using a light clamping pressure and place in the oven to cure. Do not disturb the joint until the adhesive has cured.

Loctite ESP110 has controlled flow at its cure temperature so that it will not flow out of the joint. ESP110 is approved to the Waters Byelaws Scheme as being suitable for contact with potable (drinking) water.

The information given and the recommendations made herein are based on our experience and are believed to be accurate. No guarantee as to, or responsibility for, their accuracy can be given or accepted, however, and no statement herein is to be treated as a representation or warranty. In every case we urge and recommend that purchasers, before using any product, make their own tests to determine, to their own satisfaction, its suitability for their particular purposes under their own operating conditions

Henkel Loctite Americas
+860.571.5100

Henkel Loctite Europe
+49.89.9268.0

Henkel Loctite Asia Pacific
+81.45.758.1810

For the most direct access to local sales and technical support visit: www.loctite.com