



The Glue People

Trade Grade Products Ltd
Unit 2, Thorne Way
Woolsbridge Industrial Park
Three Legged Cross
Wimborne, Dorset, BH21 6FB

Tel 01202 820177
Fax 01202 814011

TradePUR D112 VFS

Solvent free, moisture cure polyurethane.

General Description

TradePUR D112 VFS is a solvent free, moisture cure, one component polyurethane adhesive. It cross-links in the presence of moisture to form a solid, permanently elastic film. Although the water vapour in the ambient air and parts to be bonded may already be sufficient for this process, water is usually sprayed on to the bonding site. Analyses on the influence of temperature and humidity on the solidity of a completely cured gluing are to be conducted with respect to the specific application.

More moisture and higher temperatures accelerate the cross-linking process and therefore influence the shelf life, open wet time and curing time of the adhesive. The times indicated in this datasheet are therefore only guidelines which may vary according to existing conditions.

Uses

Bonding for different kinds of assembly work TradePUR D112 VFS has very good adhesion to metals such as galvanized steel, high grade steel, undercoated steel, aluminum, non-ferrous metals, thermosetting plastics, DKS, GR-polyesters, hardened PVC, ABS, SAN, PA, PC, PMMA, wood and cemented materials.

Due to the large number of different areas of application and possible differences in the reaction of the bond, testing is required before use in production.

Application

TradePUR D112 VFS is applied to one side in a strip and if necessary further spread using a toothed trowel. For low production throughput we recommend to use cartridges or tubes. Pressing from special drums by means of piston pumps and a pressure plate is only recommended for high product throughput (at least one drum per week per dosing equipment). Depending on the size of the drum a pressure plate with a diameter of 280mm or 355mm is required. The pressure plate should be treated before entering the drum. During pressing, the plate should be covered to prevent the adhesive which escapes at the sides from causing the plate to stick.

Addition of moisture

To accelerate curing and gain independence from the varying degrees of moisture available, a fine spray of water is usually supplied to the bonding site. Although water is sprayed in most cases onto the coating film of adhesive, in some cases the opposite side may also be sprayed. Approximately 40/g/m² of water is sufficient.

Assembling and pressing

The parts may be assembled and pressed immediately after applying the adhesive and spraying it with water. This must take place within the open wet time. The parts should continue to be pressed until the adhesive has cured to ensure the closest contact of the bonding surfaces.

The amount of pressure required and the type of pressing process employed is largely determined by the type and size of the parts to be bonded since the adhesive itself does not require pressure in order to cure and the pressure only serves to hold its bonding parts together.

Pressing times

The pressing times required are completely dependent on the temperature and degree of moisture available. The following are standard values if water is sprayed on to the bonding site:

| | |
|----------|-----------------|
| At +20°C | approx. 10 mins |
| At +40°C | approx. 5 mins |
| At +60°C | approx 3 mins |

With these times a strength is reached which allows further working of the parts. The final strength is reached after several days.

Exact times for special applications must be individually determined, as they may vary due to existing conditions.

Physical Data

| | |
|------------------------------|--|
| Density | 1.49 ± 0.03 g/cm ³ |
| Viscosity | 140,000 ± 40,000 mPas |
| Open time (20°C / 50% RH) | Without spraying water approx. 5 mins |
| | After spraying with water Approx. 2 mins |
| Colour | Traffic White (-RAL Nr. 9016) |
| Coverage | 200 – 300 g/m ² |
| Temperature | At least 20°C |
| Shelf life | 6 months when stored in a dry environment between +5°C and 25°C in unopened containers. Protect from moisture. Opened containers must be closed airtight and used up as soon as possible. |

Special attention

Carbon dioxide forms during the curing reaction so that the adhesive foams to a varying degree, depending on the amount applied, the type of bond, the temperature and the pressure exerted. This property is desired for many applications and is a special advantage of this adhesive. However, in certain individual applications, foaming may be disadvantageous or render the adhesive unsuitable.

General Information

For safe handling information on this product, consult the material safety data sheets, (MSDS).

Data Ranges

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

Important Notice

Data contained in this document is for information only and is believed to be reliable. Trade Grade Products Ltd (TGP) cannot assume responsibility for results obtained by others over whose methods we have no control.

It is the user's responsibility to determine suitability of the product for any specific purpose and TGP is pleased to provide a sample upon request.

Before using this product ensure that you have been supplied with and have read carefully the following information.

- The hazard label (complying with latest CDG/CPL regulations) applied to the container.
- Material Safety Data Sheet, TradePUR D112 VFS.