



# TDS Solvent Cement - ETSC125 & ETSC250

## **DESCRIPTION**

Special solvent cement for welding rigid PVC pipes and accessories pressure systems, according to EN 14814. Specifically indicated to bond materials under these regulations: EN 1452 and EN 1329.

Homologated adhesive (CE marking) for thermoplastic piping systems of fluids under pressure PN16 in installations for the transport/disposal/storage of water not intended for human consumption. Suitable to use in drinking water pipes.

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## **TYPE**

Based on homopolymer PVC resin.

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## **PROPERTIES**

- High apparent viscosity (thixotropy) and excellent fluidity.
  - High thixotropy index – prevents it from dripping upon application.
  - Moderately fast initial curing, which allows minor rectifications during the installation and facilitates the bonding of large diameters.
  - Due to its composition it acts as a real chemical PVC welder.
  - Easy application, does not drip and never forms "tears" inside the tubes.
  - The fixed joints present strength and ageing characteristics comparable to those of rigid PVC.
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## **APPLICATIONS**

Solvent cement for:

- Connections of rigid PVC tubes and accessories in systems with pressure up to PN 16, in accordance with that established by regulation EN 14814: "Adhesives for thermoplastic piping systems for fluids under pressure. Specifications." Especially suited for joining materials which comply with regulations EN 1452 and EN 1329
  - Water supply, irrigation, gas pipeline, industrial facilities for piping drainage and rain water.
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## **TECHNICAL CHARACTERISTICS**

Properties of packed adhesive:

Viscosity (Brookfield RVT, 20 rpm, Sp. 5) at 23 °C	Approx. 8000 mPa s
Thixotropy index	Approx. 4.5
Solid Content	Approx. 20%
Density	Approx. 0,87 g/ml
Flammability	Highly flammable
Open time (at 23°C)	Máx. 3 min
Gap filling capacity	+ 0.6 mm
Drying time for pressure (in standard conditions)	24 h
Shear strength (1 h drying time)	> 0,4 MPa
Shear strength (24 h drying time)	> 1,5 MPa
Shear strength (20 days + 4 days drying time)	> 7,0 MPa
Resistance to pressure (20 °C)	51.2 bar
Resistance to pressure (40 °C)	20.8 bar
Application Temperature	-5 a +30°C
Temperature in service	-5 a +50°C

## **INSTRUCTIONS FOR USE**

Prepare the pipes by cutting them at a right angle, chamfer at 15° and deburr. Clean and degrease the pipe and socket with a cloth soaked in PVC CLEANER. Stir the Solvent Cement before use. Apply the Solvent Cement with a brush axially from the inside, outwards to form a thin layer in the socket and a thick layer on the pipe. Insert the two parts to the full depth of the joint without twisting, always within 3 minutes after applying the solvent cement. Hold for 30 seconds while the initial bond takes place. Clean off excess solvent cement with a paper towel and PVC CLEANER. Allow 5 minutes before handling. For temperatures lower than 10 °C, wait at least 15 minutes before handling.

The Solvent Cement cures in 8 hours depending on weather conditions. It is recommended to wait 24 hours before performing the pressure test (1.5 x PN). If the pipes are to be used under pressure within the first 24 hours after bonding, a prior minimum waiting time of 1 hour for each bar of working pressure must be observed. The bonded pipes should be lowered into the trench after 10 to 12 hours.

Installation at low temperature (below 5 °C) requires utmost care. The pipe ends and sockets to be bonded must first be warmed to 25-30 °C by means of a suitable hot-air blower (explosion proof). The finished joint must be kept between 20 and 30 °C for 10 minutes to ensure proper curing.

For diameters from 110 to 250 mm:

- The application of the adhesive by two operators simultaneously is recommended.
- Cut pipe ends square and remove swarf and other residue from inside and outside diameter. Clean and degrease parts to be bonded with a cloth (or crepe paper) soaked in PVC CLEANER.
- Apply the adhesive generously and evenly over the entire surface. Do it quickly to limit drying of the adhesive.
- Immediately fit the two parts completely, pushing longitudinally without turning them.

## **CAPACITY:**

These tables show the quantities of solvent cement and cleaner required to bond 100 joints of the following diameters:

DIÁMETER	Adhesive (L)	Cleaner (L)	DIÁMETER	Adhesive (L)	Cleaner (L)
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32	0.8	0.5	110	8.0	1.7
40	1.1	0.7	140	13.0	2.1
50	1.5	0.9	160	19.0	2.5
63	1.7	1.1	225	26.0	4.5
75	2.2	1.3	280	38.0	6.5
90	4.0	1.4	315	52.0	10.2

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## **STORAGE**

Stored in its original container and in a cool, dry place, this product maintains its properties according to the following chart.

<b>CONTAINER</b>	<b>SHELF LIFE</b>
Metal can	2 years
Metal tube	2 years
Plastic bottle	2 years

Appropriate precautions must be taken due to it being a very flammable product; it must be stored far from flames, sparks, heat sources, and in non-smoking areas

It is not suitable to keep the Solvent Cement stored below 5°C because an increasing of the viscosity is produced, affecting to adhesive applicability. In these cases, is necessary to condition the adhesive at room temperature and stir it to reduce viscosity again.

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## **CLEANING**

The fresh product is eliminated with a cloth soaked in PVC CLEANER. The Solvent Cement adhesive attacks rigid PVC, which is why all accidental contact of pieces with the product must be avoided.

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The above mentioned data are based on our better experience and knowledge, but should be understood as specifications. The end user is responsible for verifying the suitability of the information provided, according to the specific use of the product.