



R305 CEMENT PVC

1 – DESCRIPTION

AkfixR305 is special solvent cement for joining rigid PVC pipes and accessories pressure systems, according to BS EN 14814 and BS EN 14680. Specifically indicated to bond thermoplastic piping systems that conform to BS EN 1452, BS EN 1455, BS EN 1566 and BS EN 1329. Adhesive with CE Marking for thermoplastic piping systems for fluids under pressure (PN16). Designed also to be used in non pressure systems such as PVC and ABS.

2 – PROPERTIES

- Very high initial forging speed.
- High resin content gives a good filling capacity in diametrical gaps.
- Gel consistency and excellent fluidity.
- High thixotropy index – prevents it from dripping upon application.
- Acts as a real chemical welding system for PVC, due to its composition.
- Easy to apply; it does not run or form “tears” inside the fixed pipes.
- The fixed joints present resistance and ageing characteristics comparable to those of cement PVC.
- Complies with requirements of the standard BS-EN14680 and BS-EN14814.

3 - APPLICATIONS

Specifically indicated for:

- Bonding cement PVC-U pipes and accessories in pressure systems up to 16 PN according to BS EN 14814 “Adhesives for thermoplastic piping systems for fluids under pressure. Specifications”. Specifically indicated to bond thermoplastic piping systems that conform to BS EN 1452 and BS EN 1329.
- Bonding pipes and accessories in waste systems according to the following standards:
 - PVC-U plastics piping systems for soil and waste discharge (low and high temperature) – BS EN 1329.
 - ABS plastics piping systems for soil and waste discharge (low and high temperature) – BS EN 1455.
 - PVC-C plastics piping systems for soil and waste discharge (low and high temperature) – BS EN 1566.

4 - INSTRUCTIONS

First, pipes have to be prepared: cut them at a right angle, beveling edges at a 15° angle. Clean and degrease the pipe and sleeve with absorbent paper soaked with PVC Cleaning Solvent. Apply the adhesive with a brush from the inside outwards first to the socket, and then to the pipe. Insert the pieces immediately without twisting, and always within 2 minutes of applying the cement. Keep totally still for 30 seconds while the initial forging takes place. Remove any excess of cement with absorbent paper soaked with PVC Cleaning Solvent. The bond should not be manipulated in the following 5 minutes. For temperatures below 10 °C, wait for almost 15 minutes to manipulate the bonded pieces.



Akfix R305 cures in 8 hours depending on the climatic conditions, but it is recommended to wait 24 hours before applying pressure values higher than 1,5 atmospheres, and 10 or 12 hours before submersing the pipes into the trenches. If the system has to withstand pressure before 24 hours of drying, wait 1 hour for each bar the system has to resist.

Generally, the following cure and pressure conditions are recommended:

Systems with up to 10barsof pressure and pipes	Application temperature +5 ^a Cto+35 ^o C	Drying time reduced to 1hour(under evaluation)
Waste Systems		
Other Systems		Normal drying time 24hours

CAPACITY

The following table shows the quantities of solvent cement necessary for 100 bonds of the diameters indicated:

DIAMETER (mm)	Adhesive(L)	DIAMETER (cm)	Adhesive(L)
32	0.8	110	8.0
40	1.1	140	13.0
50	1.5	160	19.0
63	1.7	225	26.0
75	2.2	280	38.0
90	4.0	315	52.0

5- PACKAGING

Product	Volume	Package
R305	50 gr	25
R305	125 gr	25
R305	250 ml	24
R305	500 ml	12
R305	1000 ml	6

6- STORAGE AND SHELF LIFE

Stored in its original container and in a cool, dry place, this product maintains its properties for at least 2 years . Considering it is a flammable product, necessary precautions must be taken, and it should be stored away from flames, sparks and heat, in non-smoking areas.

7- RESTRICTIONS

- Highly flammable.
- Irritant.
- Keep away from high temperatures, naked flame and sources of ignition.
- Only work in well-ventilated areas.



8- TECHNICAL PROPERTIES

Base	: PVC polymer resin, organic solvents and thixotropic agents.
Viscosity	: Approx. 9.000 mPa s (Brookfield RVT, 20 rpm, Sp.3)
Solid content	: Aprox. %20
Relative density	: Aprox. 0.90 gr/ml
Flammability	: Highly flammable
Open time(23 °C)	: Maximum 2 minutes
Maximum Gap Filling Capacity	: + 0,6 mm
Pressure Drying time (in normal 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
Pressure resistance (20 °C)	: 51,2 bar
Pressure resistance (40 °C)	: 20,8 bar
Application temperature	: -5°C to +30°C
Service temperature	: -5°C to +50°C