

Technical Data Sheet

UV 3011

Loxéal UV 3011 is a low viscosity adhesive fast curing under UV radiations or visible light with appropriate intensity. The adhesive has been formulated to bond PC, ABS, and PVC with low stress cracking. Makes a flexible and tough plastic film. Developed to assemble medical components.

Physical properties

Composition:	Urethane acrylate
Colour:	yellowish
Viscosity (20°C –mPa.s)	
Brookfield RVT spindle 1 20 rpm	250
Specific weight (gr/ml):	1,1
Flash point:	> 90°C
Refractive index @ 25°C:	1,473
Shelf life :	12 months @ 25 °C

Stress cracking

According to ASTM D3929 :

@ 7 N/mm ²	> 15 min
@ 12 N/mm ²	> 4 min

Polymerization features

To obtain the best features, the parts to bond shall be cleaned and dried. The polymerization is belonging to the UV lamp radiation, to the distance from the lamp, to the thickness of the adhesive applied, to the light permeability of the pieces to bond and to geometry of the joint.

We recommend to use UV lights able to produce UV waves between 365 nm and 420 nm at 100mW/cm².

We recommend to cool the area irradiated with UV lamp while using thermoplastic materials.

Curing time

Substrate	time in sec.
• PVC/PVC rigid	6
• PVC/PVC flexible	5
• PC/PC	55
• PC/ABS	55
• Plexiglass/Plexiglass	6
• Glass/Glass	6

Properties of the polymerized adhesive

Shear strength DIN 53283 (N/mm²):

PC/PC	> 9 N/mm ² (breaking piece)
PVC/PVC rigid	> 5 N/mm ² (breaking piece)
PVC/PVC flexible	> 2,5 N/mm ² (breaking piece)
PC/ABS	> 7 N/mm ² (breaking piece)

Elongation at break DIN 53504	12 N/mm ² 110 %
Hardness (Shore D):	60

Sterilization effects:

Loxéal 30-11 shows excellent feed back after standard sterilization processes under E.T.O. and Gamma Radiations.

Storage:

We recommend to store the adhesive in an cool and dry place at temperature non exceeding +28°C. To avoid contaminations, we recommend to avoid any refilling of adhesive not used into the bottle.

For further information about the application and the storage, get in touch with the Loxéal Technical Service.

Notes:

The information herein contained are based on Loxéal knowledge and know-how. Loxéal Srl certifies the quality of the products sold in compliance with Loxéal Srl specifications. Because of the different material available on the market and because Loxéal Srl cannot control the application, the user shall verify with appropriate tests the compliance of the adhesive with the application and Loxéal Srl cannot be liable for any improper use of the products.

Handling and safety properties:

Consult the Material Safety Data Sheets

Packing:

Bottles: 250 ml – 2 litre