

Description

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. It makes a flexible and tough plastic film. Developed to assemble medical components. Approved for medical use according to ISO 10993 from Toxicon.

Physical properties

Composition :	Urethane acrylate
Colour :	transparent
Viscosity (+25°C - mPa s) :	200 - 300
Specific weight (g/ml) :	1,05
Flash point :	> +90°C
Refractive index @ +25°C :	1,473
Shelf life :	12 months at +25°C in original unopened packaging

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, clean and dry parts to bond. The polymerization depends on the UV lamp radiation, on the distance from the lamp, on the thickness of the adhesive applied, on the light permeability of the pieces to bond and on 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 seconds
• PVC/PVC rigid	ab. 6
• PVC/PVC flexible	ab. 5
• PC/PC	ab. 55
• PC/ABS	ab. 55
• Plexiglass/Plexiglass	ab. 6
• Glass/Glass	ab. 6

Properties of the polymerized adhesive

Shear strength ISO 4587 (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)
Tensile strength (DIN 53504) :	> 15 N/mm ²
Elongation at break : (DIN 53504) :	100 - 150 %
Hardness (Shore D) :	50 - 65

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 product in a cool and dry place at temperature non exceeding +25°C. To avoid contaminations do not refill containers with used product. For more information on applications, storage and handling contact Loxéal Technical Service

Safety and handling

Consult the Safety Data Sheet before use

Note

The data contained herein, obtained in Loxéal laboratories, are given for information only; if specifics are required, please contact Loxéal Technical Department. Loxéal ensures abiding quality of supplied products according to its own specifics. Loxéal cannot assume responsibility for the results obtained by others which methods are not under Loxéal control. It is user's responsibility to determine suitability for user's purpose of any product mentioned herein. Loxéal disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loxéal products. Loxéal specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.