



# LOXEAL®

## ENGINEERING ADHESIVES

**PUT IT ON & GO TO SLEEP**



MEDICAL GRADE UV CURING ADHESIVE

## LOXEAL 30-11

### Technical Data



#### Overview:

Loxeal® UV 30-11 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:	Clear
Viscosity (+25°C – mPas):	200 – 300
Specific Weight (g/ml):	1.05
Refractive index @ +25°C	1.473
Flash Point:	> +90°C
Shelf Life: 12 months at 25°C in original unopened packaging	

#### Stress Cracking

According to ASTM D3929 :	
@ 7 N/mm <sup>2</sup>	> 15 min
@ 12 N/mm <sup>2</sup>	> 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/cm<sup>2</sup>. We recommend to cool the area irradiated with UV lamp while using thermoplastic materials.

#### Curing time

Substrate	Time In Seconds
• 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 ISO 4587 (N/mm <sup>2</sup> ):	
PC/PC	> 9 N/mm <sup>2</sup> (breaking piece)
PVC/PVC rigid	> 5 N/mm <sup>2</sup> (breaking piece)
PVC/PVC flexible	> 2.5 N/mm <sup>2</sup> (breaking piece)
PC/ABS	> 7 N/mm <sup>2</sup> (breaking piece)
Tensile strength (DIN 53504):	> 15 N/mm <sup>2</sup>
Elongation at break (DIN 53504):	100 - 150 %
Hardness (Shore D):	50 - 65

#### Sterilization effects:

Loxeal 30-11 shows excellent feedback after standard sterilization processes under E.T.O. and Gamma Radiations.

#### Storage:

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

#### Safety and Handling:

Consult the Safety Data Sheet before use

#### Note:

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

Everjoy Industrial Supplies Pte. Ltd.

38 Woodlands Industrial Park E1, #04-11 Singapore 757700

Tel.: +65 6748 3093 Fax: +65 6748 7202 Email: salesmgnt@everjoy.com.sg