

LOXEAL UV 30-11

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) : | 1,1 |
| 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

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