LOXEAL ENGINEERING ADHESIVES

UNI EN ISO 9001 - UNI EN ISO 14001

Registered Quality and Environment Management System Company

Technical Data Sheet

Preliminary

LOXEAL 3461
(Polyolefins bonding)

Description

Two-components medium speed curing acrylic adhesive, specifically designed for bonding PP, PE, HDPE, LDPE, Polyolefins, copolymers, PTFE, EPDM among them and in combination with other plastics such as ABS and PVC and to metals (Aluminum) as well. Does not require any surface treatment.
Mixing ratio 1:1
Micro-particles for gap control; it provides high shear and peeling strength.

Physical properties

	Part A	Part B
Chemical composition:	methacrylate ester	methacrylate ester
Appearance:	translucent	transparent
Viscosity (+25°C - mPa s):	thixo paste	15.000 - 30.000
Specific weight (g/ml):	1,0	1,0
Mixing ratio (A+B):	1:1	
Maximum gap filling:	1 mm	
Shelf life:	6 months in unopened packaging at +2°C/+7°C	

Curing properties at +25°C (typical value)

Pot life:	5 - 8 minutes*
Fixture time:	12 - 15 minutes**
Full cure:	48 - 72 hours
Shear strength (ISO 4587 at +25°C):	
PE:	> 4 N/mm^2
PP:	> 4 N/mm^2***
ABS:	> 4 N/mm^2***
PTFE:	1,5 N/mm^2
PVC:	> 5 N/mm^2***
EPDM:	3 - 5 N/mm^2***
Aluminum/PE:	3 - 5 N/mm^2
Hardness Shore D (ISO 868):	40 - 50
Temperature range:	-40°C/+80°C

* Time detected using 2g of Part A +Part B with mixing nozzle
** 0.1 N/mm^2 shear strength is achieved
*** Substrate failure

Substrate failure can be achieved depending on plastic type and its intrinsic properties and treatments.

Directions for use

1. Surfaces preparation
For best results we recommend to scratch the surfaces with a tool and then to degrease and clean with Loxeal Cleaner 10 or Acetone and let dry for a few seconds.
2. Mixing
Part A and Part B need to be mechanically mixed before use in the ratio of weight and/or volume in compliance with technical specifications until a homogeneous colour is reached. Products are available in dual cartridges with static mixers (separately provided) allowing a direct and correct product application on the substrates to bond, completely discarding the first 3/5 cm of the extruded product. Avoid excess of product blend because heating produced by chemical reaction may cause risk and loss of product.
3. Pot life Pot life of the mixed product may vary from few minutes to some hours at room temperature according to the resin and the hardener used. Higher temperature reduces the pot life. Apply product at temperature higher than +15°C.
4. Assembly
Parts to be bonded shall be assembled immediately after product application and kept close until full polymerization without providing any mechanical stress.
5. Cleaning
Excess of product can be removed with Acetone or any other solvent based cleaner compatible with the substrates to bond. Application tools and dosing systems shall be cleaned before the product is hardened. Cured product can be removed only mechanically.

Warnings

This adhesive is not approved for usage neither with pure nor with gaseous oxygen.

Storage

Store refrigerated at temperature between +2°C/+7°C. To avoid contaminations do not refill containers with used product.
For further information on applications, storage and handling contact Loxeal Technical Service

Safety and handling

Consult Material Safety Data Sheet before use.

Note

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