PLIOGRIP™ 3540 SERIES

MDI FREE POLYURETHANE ADHESIVE SYSTEM

KEY FEATURES

- MDI Free, <0,1% content of monomeric diisocyanate
- Excellent impact resistance
- Fast cure response at room temperature

DESCRIPTION

Pliogrip 3540 is a series of two component room temperature curing polyurethane adhesive systems offering a unique combination of flexibility and strength. All grades offer a well-balanced profile of easy application, gap filling and optimized trimming (sanding) properties.

Unlike most other two-component polyurethane adhesives, Pliogrip 3540 systems are not H351 (former R40) classified.

APPLICATION

This adhesive is specially designed to bond the different thermoset composite materials and thermoplastic materials such as :

- SMC, BMC, CFRP, RTM
- PUR-RIM, ABS-OC, PA, PC
- Coated metals

FEATURES

- Excellent specific adhesion to thermoset composite materials, thermoplastic materials and coated metals.
- Enhanced adhesion to PE and PP (non-structural).
- Structural bonding, sealing and repair in one product.
- Fast cure response at room temperature
- Heat acceleration optional to achieve shorter cycle times
- <0.1% monomeric diisocyanate, exempt from REACH diisocyanate training requirements
- Excellent impact resistance
- Easy processing from cartridge
- Very good gap filling capacity and sag resistant for vertical applications

METHOD OF USE

Pliogrip 3540 is available in reactivity variants from 30 seconds to 45 minutes' open time. The unique chemistry of these polyurethane adhesives systems allows non-yellowing white variants.

Mixing ratio A:B in weight: 100:100.
Mixing ratio A:B in volume: 100:100.

Mixing: To ensure a homogeneous mix both components must be mixed using the correct ratio.
Cure: ambient or heat accelerated (max 120°C)
Paint bake (short term): up to 170°C (applied to the cured adhesive
Optimum / Maximum bond line thickness: 0,5mm to 1,5mm / ca. 5mm
Consumption ½" and ¼" diameter round bead: ca 40g/m and ca 160g/m

PLIOGRIP	3540 / 0.5	3540 / 1.5	3540 / 3.5	3540 / 5	3540 / 10	3540 / 45
Open Time (Bead Gel)	20-30 sec	70-115 sec	3-4 min	4-6 min	8-12 min	45-60 min
Handling Time (0,7MPa)	3-4 min	8-10 min	15-20min	20-30 min	40-50 min	4-5 h
Sanding Time	5-6 min	10-12 min	30-40 min	40-60 min	1-1.5 h	8-10 h

All data measured at 23°C. Lower temperatures will prolong the cure; higher temperatures will accelerate the cure.

Bostik Adhesives Ltd.
Kidderminster, UK
Phone : +44 (0) 1562 82 13 00
emea-csr-pl@bostik.com
www.bostik.co.uk

Bostik S.A.
Colombes, France
Phone : +33 (0)1 49 00 90 00
www.bostik.fr

Bostik GmbH
Borgholzhausen, Germany
Phone : +49 (0) 54 25/801-0
Fax : +49 (0)54 25/801140
www.bostik.de

Bostik B.V.
's-Hertogenbosch, the Netherlands
Phone : +31 (0)7 36 244 244
Fax : +31 (0)7 36 244 344
www.bostik.nl

PHYSICAL PROPERTIES		Pliogrip ™ 35
CHARACTERISTICS		VALUES
Chemistry		Isocyanate
Colour		White
Viscosity @100 s^{-1} *	[mPa.s]	12,000 - 14,000
Specific gravity	[g/cm^3]	1,3

PHYSICAL PROPERTIES		Pliogrip ™ 40
CHARACTERISTICS		VALUES
Chemistry		Curative
Colour		Black or White
Viscosity @100 s^{-1} *	[mPa.s]	6,000 - 10,000
Specific gravity	[g/cm^3]	1,3

TECHNICAL DATA		A + B components
CHARACTERISTIC		VALUE
Basic Material		Polyurethane
Consistency		Thixotropic
Tensile Strength**	[mPa.s]	18 - 20
Youngs Modulus**	[mPa.s]	350 - 450
Shore Hardness (D)***		73
Glass transition Temp, Tan Delta Peak****	[°C]	30
Glass transition Temp, G" Peak****	[°C]	18

* Viscosities are measured at 25°C using a 40mm cone; 0° cone angle
** Tests performed at 23°C, ISO 527-2
*** ASTM-2240
**** ASTM E-1640

Note: Physical properties are typical values, based on material tested in our laboratories, but are subject to a standard deviation from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot.

PACKAGING

Pliogrip™ 3540 is available in 200L drums, 25L pails and cartridges (contact local representative for available sizes).

STORAGE

Drums and pails have a shelf life of 18 months from date of shipping when stored indoors between 15°C to 32 °C.
Cartridges have a shelf life of 24 months from date of filling, when stored indoors between 15°C to 32 °C. After dispense, the used mixer should be left attached to the cartridge to ensure sealing from humidity.

FURTHER INFORMATION

Bostik maintains Safety Data Sheets (SDS) on all of its products. Users should read and understand the Safety Data Sheet (SDS) to familiarize themselves with the product hazards and the precautions to be taken when handling or using this product.

The information given and recommendations made herein are based on Bostik's research only and are not guaranteed to be accurate. The performance of the product, its shelf life, and application characteristics will depend on many variables, including the kind of materials to which the product will be applied, the environment in which the product is stored or applied, and the equipment used for application. Any change in any of these variables can affect the product's performance.

It is the buyer's obligation, prior to using the product, to test the suitability of the product for an intended use under the conditions that will exist at the time of the intended use. Bostik does not warrant the product's suitability for any particular application. The product is sold pursuant to Bostik's Terms and Conditions of Sale that accompanies the product at the time of sale. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute permission, inducement, or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

SMART HELP

Please contact your local representative



Bostik Adhesives Ltd.
Kidderminster, UK
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Colombes, France
Phone : +33 (0)1 49 00 90 00
www.bostik.fr

Bostik GmbH
Borgholzhausen, Germany
Phone : +49 (0) 54 25/801-0
Fax : +49 (0)54 25/801140
www.bostik.de

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Fax : +31 (0)7 36 244 344
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