BETASEAL™ 1407

Short Description

One component, moisture curing adhesive with excellent sag and bead stability based on polyurethane chemistry. The adhesive cures with environmental moisture and skin formation and curing is dependent on humidity, temperature and application dimensions.

Properties

Cold processable, medium viscous, non conductive, high modulus, fast curing glass bonding adhesive which requires a paint primer during the process.

Application

All Dow Automotive products are primarily developed in co-operation with the automobile manufacturers, according to their needs and their specifications, they are approved for the specific applications as defined by the customer. The use of the product other than approved appliction have to be released in written form by the Technical Service of Dow Automotive Systems.

Specification

Unless specified otherwise test are conducted at 23 °C/50% relative humidity.

Basis	Polyurethane prepolymers
Colour	black
Density	1.30 - 1.38 g/cm³
Solid contents	min 95%
Viscosity Extrusion, Ballan at 23°C, 4mm nozzle / 4bar	15 - 23 g/min
Processing temperature	10 - 40°C
Skinning time	11 - 17 min
Cure rate after 24h	min 3.0 mm
Sagging, on vertical wall tilting	max 30°
Hardness Shore A (DIN 53 505)	45 - 60
Lap shear strength (DIN EN 1465)	min 3.5 MPa after 3d
Tensile strength (DIN 53 504)	9 MPa
Elongation at break (DIN 53504)	> 600%
G-Modulus	1.8 - 2.8 MPa
Specific electrical volume resistivity	10^{10}Ωcm
Temperature stability	-40°C to 100°C
Resistance to chemicals	Highly resistant to aqueous chemicals, petrol, alcohol and mineral oils; conditionally to esters, ketones, aromatics and chlorinated hydrocarbons.
Bonding surface preparation	All bonding surfaces must be free of dirt, dust, water, oil and grease. In general surfaces should be primed. Verify compatibility or consult our technical service department.
Cleaning	Uncured adhesive residues can easily be removed with BETACLEAN 3500. Hardened adhesive residues can only be removed mechanically. Immerse equipment in BETACLEAN 3000.
Shelf life	Short time storage temperatures: -5°C to 40°C. 9 months at +5°C to +25°C in unopened containers. (See "use before" date printed on container.)
Containers	Cartridges / Pails / Drums

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Health and Safety

The use of polyurethane adhesives is generally harmless and as long as the basic rules for safe handling of chemicals are applied. However, the direct contact of uncured adhesive with food and food containers should be avoided. It is mandatory to use protective measures in order to prevent direct skin contact. Suitable gloves and eye protection are essential. Should the skin come into contact with uncured adhesive,it must be rinsed first with warm water and then cleaned thoroughly with conventional soap. Cleaning skin with solvents must be avoided. It is essential to ensure good ventilation. For detailed protective measures refer to the Material Safety Data Sheets.

Dow Automotive Systems Quality Assurance

Quality is our utmost goal. Dow Automotive works according to a modern quality management system conforming to ISO/TS 16949:2002.
Environment: All sites of Dow Automotive are conforming to ISO 14001:2004.

All statements, technical information and recommendations contained in this document are based on tests that we believe are reliable. However, the accuracy or completeness of the statements, information and recommendations is not guaranteed, as before using, the user should determine the suitability of the product for user's intended purpose.

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Dow Automotive Systems Main Offices

The Dow Chemical Company **Customer Information Group Europe** Phone +800 3 6946367 Phone +32 3 450 2240 Italia 800 783 825 Fax +32 3 450 2815	**Dow Automotive Systems** **World Head Quarter** 1250 Harmon Road Auburn Hills, MI 48326 USA Tel. +1 248 391 63 00 Fax +1 248 391 64 17	**Dow Automotive Systems** Dow Deutschland Anlagengesellschaft GmbH Am Kronberger Hang 4 65824 Schwalbach Germany Tel: +49 6196 566 0 Fax: +49 6196 566 444	**Dow Automotive Systems** Dow Europe GmbH Bachtobelstrasse 15-17 CH-8810 Horgen Switzerland Tel. +41 (0) 44 728 2111 Fax. +41 (0) 44 728 2935
Dow Automotive Systems St. George's Way Bermuda Industrial Estate Nuneaton CV10 7QT United Kingdom Tel: + 44 (0) 24 7635 7200 Fax: + 44 (0) 24 7635 7257	**Dow Automotive Systems** Dow Chemical Ibérica, S.L. Ribera del Loira, 4-6 - Planta 4ª (Edificio IRIS) 28042 Madrid Spain Tel. + 34 91 740 7800 Fax. + 34 91 740 7785	**Dow Automotive Systems** Dow France S.A.S. 23 avenue Jules Rimet 93631 La Plaine St Denis Cedex France Tel: +33 1 49 21 78 78 Fax: +33 1 49 21 79 79	**Dow Automotive Systems** Dow Italia Divisione Commerciale s.r.l. Via Patroclo, 21 A - 20151 Milano Italy Tel: +39 02 482 243 29 Fax: +39 02 482 243 84

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