



## Technical Data Sheet

### SILASTIC™ Q3-3636 Adhesive

Two-component, room temperature curing thixotropic adhesive

#### Features & Benefits

- Fast cure at room temperature
- Good, durable adhesion
- Reduced weight loss (fogging) at high operating temperatures
- Fast assembly process
- Adhesion to a wide variety of substrates
- Through cure and not an outside inward cure like typical moisture cure adhesives
- Not humidity cure sensitive

#### Applications

SILASTIC™ Q3-3636 Adhesive has been developed to provide durable adhesive sealing of components which must perform in difficult environments:

- The substrates to be bonded exhibit different thermal expansion rates
- Designed to operate at high temperatures
- Low fogging characteristics of the adhesive are desired
- Fast cure requirements make one part of the adhesives inappropriate

A typical example in automotive manufacturing is the bonding of polycarbonate or glass lenses to the reflector housing of headlamps and fog lamps.

SILASTIC™ Q3-3636 Adhesive is also a perfect solution in appliances manufacturing, especially for oven and ceramic hob assembly, for bonding glass to metal, glass to painted metal or glass to plastic.

#### Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

CTM <sup>1</sup>	ASTM <sup>2</sup>	Property	Unit	Result
SILASTIC™ Q3-3636 Base				
0176 B		Appearance		White paste
0050 E	D1084	Viscosity	mPa.s	200000
0097 B	D1475	Specific gravity		1.31

1. CTM: Corporate Test Method, copies of CTM's are available upon request.
2. ASTM: American Society for Testing and Materials.

## Typical Properties (Cont.)

CTM	ASTM	Property	Unit	Result		
<b>SILASTIC™ Q3-3636 Catalyst</b>				<b>Grey</b>	<b>Black</b>	<b>Special Black</b>
0050 FE	D1084	Viscosity	mPa.s	18000–48000	55000–13500	350000 (ca.)
0097 B	D1475	Specific gravity		1.00	1.02	1.04
<b>SILASTIC™ Q3-3636 Base with SILASTIC™ Q3-3636 Catalyst<sup>3</sup></b>						
0092 AA		Working time, snap	min	3–10	3–10	2.5–10
0095 A		Tack free time	min	5–18	6–20	5–18
0062		Flow	min	< 2	< 2	< 2
0097 B		Specific gravity		1.27	1.27	1.28
0040 A		Color	RAL code	7000	7016	7021
<b>Properties after full cure – 7 days at 23°C – measured on 2 mm sheets – typical values</b>						
0099 E	D2240	Durometer	Shore A	32	35	35
0137 AA	D412	Tensile strength	MPa	> 1.8	> 1.8	> 1.8
0137 AB	D412	Elongation to break	%	> 300	> 300	> 300
<b>Adhesion via peel test – 24 hours cure at 23°C on clear polycarbonate</b>						
1007 M		Cohesive failure	%	100	100	100
<b>Adhesion via lap shear – 24 hours at 23°C on PC/glass and PBT-ASA blend/glass</b>						
<b>Lap shear strength</b>						
		PC / glass	MPa	> 0.7	> 0.7	> 0.7
<b>Cohesive failure</b>						
		On PC / on glass	%	100/100	100/100	100/100

3. Mix ratio with SILASTIC™ Q3-3636 Grey Catalyst and Black Catalyst 100:13 w/w. With Special Black Catalyst 100:14 w/w.

## Description

SILASTIC™ Q3-3636 Adhesive is a 2-component, thixotropic adhesive with fast cure at room temperature.

The product has been developed to show good, durable adhesion to a range of plastic, metal and glass substrates, and reduced weight loss (fogging) at high operating temperatures.

## How to Use

### Mixing

The adhesive is designed to be used with SILASTIC™ Q3-3636 Black Catalyst and Grey Catalyst in a mix ratio of 100 parts SILASTIC™ Q3-3636 Base: 13 parts SILASTIC™ Q3-3636 Catalyst by weight, (or 5.9 parts SILASTIC™ Q3-3636 Base to 1 part SILASTIC™ Q3-3636 Catalyst by volume). SILASTIC™ Q3-3636 Special Black Catalyst should be mixed in a ratio of 100 parts SILASTIC™ Q3-3636 Base to 14 parts SILASTIC™ Q3-3636 Catalyst by weight, (or 5.6 parts SILASTIC™ Q3-3636 Base to 1 part SILASTIC™ Q3-3636 Catalyst by volume). Suitable meter/mix equipment should be equipped with gear or piston metering pumps for base and catalyst, and a static mixer. Mixing via dynamic mixers is currently not recommended.

## How to Use (Cont.)

### Curing Conditions

The adhesive cures at room temperature and develops adhesion rapidly to metals, glass and plastic substrates.

The surfaces to be bonded should be clean, and free of any extraneous matter, dust or dirt.

Adhesion is normally good to most substrates (see Note) without the use of a primer, or of surface activation methods. If desired, adhesion may be enhanced via use of flame or plasma treatment of the surfaces to be bonded. The cure and adhesion strength can also be accelerated by the application of moderate heat, for example 6–10 minutes at 50–65°C.

### Note

Adhesion to low energy surfaces like polypropylene can be achieved via use of plasma or flame treatment.

### Humid and Heat Resistance

SILASTIC™ Q3-3636 Adhesive shows good adhesive resistance to hot and humid conditions, for example 6 days in water at 60°C, and 14 days exposure to 175°C.

## Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Attention: When the information contained in the SDS relates to a prototype material or a research & development sample, please be aware that hazard evaluation and handling recommendations are based on preliminary test data (if available), professional judgment in comparison with materials of a similar composition or a combination of these sources, as appropriate.

## Usable Life and Storage

When stored at or below 32°C in the original unopened containers SILASTIC™ Q3-3636 Base has a usable life of 12 months from date of production. When stored at or below 25°C in the original unopened containers SILASTIC™ Q3-3636 Catalysts Black, Grey and Special Black have a usable life 5 months from date of production.

## Packaging Information

This product is available in different standard container sizes.

## Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

## Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, [dow.com](http://dow.com) or consult your local Dow representative.

## **Disposal Considerations**

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

## **Product Stewardship**

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

## **Customer Notice**

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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