

# Dow Corning® Q3-3636 Adhesive

## FEATURES

- Fast cure at room temperature
- Good, durable adhesion
- Reduced weight loss (fogging) at high operating temperatures

## BENEFITS

- 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

## 2-component, Room Temperature Curing Thixotropic Adhesive

### APPLICATIONS

Dow Corning Q3-3636 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 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.

Dow Corning Q3-3636 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. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

CTM*ASTM*	Property	Unit	Value		
<b>Dow Corning Q3-3636 Base</b>			White paste		
0176 B	Appearance				
0050 E D1084	Viscosity	mPa.s	200000		
0097 B D1475	Specific gravity		1.31		
<b>Dow Corning Q3-3636 Catalyst</b>			Grey	Black	Special Black
0050 FE D 1084	Viscosity	mPa.s	18000-	55000-	350000**
			48000	135000	(ca.)
0097 B D1475	Specific gravity		1.00	1.02	1.04
<b>Dow Corning Q3-3636 Base with Dow Corning® Q3-3636 Catalyst***</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

**Properties after full cure** – 7 days at 23°C – measured on 2 mm sheets – typical values

0099 E D 2240	Durometer	Shore A	32	35	35
0137 AA D 412	Tensile strength	MPa	>1.8	>1.8	>1.8
0137AB D 412	Elongation to break	%	>300	>300	>300

## Table Continued

### Adhesion via Peel Test – 24 hours cure at 23°C on clear polycarbonate

1007 M	Cohesive failure	%	100	100	100
--------	------------------	---	-----	-----	-----

### Adhesion via Lap Shear – 24 hours at 23°C on PC/glass and PBT-ASA blend/glass

<b>Lap shear strength</b>	MPa			
PC / glass		>0.7	>0.7	>0.7
PBT-ASA / glass		id	id	id
<b>Cohesive failure</b>	%			
on PC / on glass		100/100	100/100	100/100
on PBT-ASA / on glass		id	id	id

\* CTM : Corporate test Method., copies of CTM's are available on request

\* ASTM : American Society for Testing and Materials

\*\* Note: A penetration test is used to measure consistency of Special Black Catalyst. Value 180-460 mm/10

\*\*\* Mix ratio with Grey and Black Catalyst 100 parts: 13 w/w. With Special Black Catalyst 100: 14 w/w

## DESCRIPTION

*Dow Corning 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 Black and Grey Catalyst in a mix ratio of 100 parts Base: 13 parts Catalyst by weight, (or 5.9 parts Base to 1 part Catalyst by volume). Special Black Catalyst should be mixed in a ratio of 100 parts Base to 14 parts Catalyst by weight, (or 5.6 parts Base to 1 part 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.

### 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

*Dow Corning 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. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The material safety data sheet is available on the Dow Corning website at [www.dowcorning.com](http://www.dowcorning.com). You can also obtain a copy from your local Dow Corning sales representative or Distributor or by calling your local Dow Corning Global Connection.

**Attention:** when the information contained in the PSDS 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. For further information, please consult Dow Corning's Health, Environmental and Regulatory Affairs Department (see Health and Environmental Information section).

## USABLE LIFE AND STORAGE

When stored at or below 32°C in the original unopened containers *Dow Corning 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 *Dow Corning Q3-3636* Catalysts Black, Grey and Special Black have a usable life 5 months from date of production.

## PACKAGING

This product is available in different standard container sizes. Detailed container size information should be obtained from your nearest Dow Corning Sales Office or Dow Corning Distributor.

## **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 Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

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

## **LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY**

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that *Dow Corning*<sup>®</sup> and XIAMETER<sup>®</sup> products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that *Dow Corning* or XIAMETER products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

**DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.**

**DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

*We help you invent the future.* <sup>TM</sup>

[www.dowcorning.com](http://www.dowcorning.com)