XIAMETER® ADH-6045 Adhesive

One component fast cure silicone adhesive

FEATURES

- One component, non-flowable heat cure adhesive
- Addition cure system: No cure by-products
- High strength, medium modulus flexible silicone adhesive

BENEFITS

- Primerless adhesion to a variety of substrates such as glass, metals, and plastics
- Rapid heat cure
- Stable and flexible from -50°C (-58°F) to +200°C (392°F)

APPLICATIONS

- Designed for flexible yet structurally strong bonding of various substrates.
- Typical applications include bonding of domestic oven doors, and assembly of ceramic cooking hobs.

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local XIAMETER® sales representative prior to writing specifications on this product.

CTM[1]	ASTM[2]	Property	Unit	Value
		As supplied		
0176		Appearance		Paste
0176		Color		Grey
0062	D2202	Flow, Mil S 8802 jig	mm	3
0090A	D56	Flash point – closed cup	°C	>100
			°F	>212
		Mechanical properties, cured 1 hour at 150°C (302°F)		
0022	D792	Specific gravity		1,2
0099	D2240	Durometer hardness, Shore A		48
0317A	D412	Elongation at break	%	210
0159A	D624	Tear strength	kN/m	9.0
		Lap shear adhesion on aluminum	MPa	4.1

[1] CTM: Corporate Test Method, copies of CTMs are available on request.
[2] ASTM: American Society for Testing and Materials.

HOW TO USE

Substrate preparation

For best adhesion, all surfaces should be cleaned and degreased with a suitable solvent. Care should be taken to ensure that all solvent is removed.

XIAMETER® ADH-6045 Adhesive has been formulated to provide excellent unprimed adhesion to many metals, ceramics, glass and plastics.

Good adhesion cannot be expected on low surface energy substrates such as polytetrafluoroethylene (PTFE), polyethylene and polypropylene. On these surfaces, special surface treatment such as chemical etching, flame or plasma treatment is required to activate the surface and promote adhesion. For

maximum adhesion, the use of *Dow Corning*® 1200 OS Primer is recommended.

After solvent cleaning, a thin coat of *Dow Corning* 1200 OS Primer is applied by dipping, brushing or spraying. Allow primer to dry for 15 to 90 minutes at room temperature and a relative humidity of 50% or higher. Substrates that melt at or below the cure temperature of XIAMETER

ADH-6045 Adhesive should not be used.

How to apply
Apply XIAMETER ADH-6045 Adhesive and bond the surfaces together. Cure using recommended conditions mentioned below. For information on appropriate dispensing equipment for your application, please contact Dow Corning.

Cure time
For complete cure and, more importantly, for optimum adhesion, XIAMETER ADH-6045 Adhesive should be cured using one of the following recommended schedules:
20 minutes at 180°C (356°F)
30 minutes at 150°C (302°F)
1 hour at 120°C (248°F)
Large components and assemblies may require longer times to reach the curing temperature.

With direct heat e.g. by infrared lamps, heating elements or induction heating of the bonded parts, cure times of less than 3 minutes can be achieved. Do not expose XIAMETER ADH-6045 Adhesive to temperatures of more than 200°C (392°F) before it is fully cured.

COMPATIBILITY
In some cases, XIAMETER ADH-6045 Adhesive may fail to cure to optimum properties when in contact with certain plastics and rubbers. Cleaning the substrate with solvent or baking slightly above the cure temperature can eliminate this problem. Certain chemicals, curing agents and plasticisers can inhibit cure.

These include:
Organo-tin compounds,
Silicone rubber containing organo-tin catalysts,
Sulphur,
Polysulfides,
Polysulphones and other sulphur containing materials,
Amines and amides,
Urethanes and azides.

PRODUCT SAFETY INFORMATION
PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL, ENVIRONMENTAL, AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE XIAMETER WEB SITE AT WWW.XIAMETER.COM.

STORAGE
Product should be stored at or below 25°C (77°F) in original, unopened containers. The most up-to-date shelf life information can be found on the XIAMETER Web site in the Product Detail page under Sales Specification.

LIMITATIONS
This product is neither tested nor represented as suitable for medical or pharmaceutical uses. Not intended for human injection. Not intended for food use.

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 our 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 our 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.

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