

WACKER® 405 - FAÇADE

WACKER Brand

WACKER® 405 - FAÇADE is a one-component, neutral-curing, low modulus silicone sealant with outstanding adhesion, long shelf life and excellent tooling characteristics for construction, glass and window building, as well as industrial applications.

WACKER® 405 - FAÇADE cures at room temperature in the presence of atmospheric moisture to give a permanently flexible silicone rubber.



Properties

- 100% silicone
- excellent weatherability
- excellent tooling characteristics for professional use
- non-corrosive to metals
- suitable for alkaline substrates such as concrete, mortar, fibrous cement
- matt finish
- excellent adhesion on most substrates without primer
- solvent-free, thus featuring low volume shrinkage during vulcanization
- ready gunnability at low (+ 5 °C) and high (+ 40 °C) temperatures
- flexible at low (-40 °C) and high temperatures (+150 °C)
- almost odorless
- non-sag

Technical data

Properties Uncured

Property	Condition	Value	Method
Skin forming time	23 °C 50 % r.h	15 - 25 min	-
Density	23 °C	1.40 g/cm ³	ISO 1183-1 A
Consistency ⁽¹⁾	-	non-sag	ISO 7390, profile U 20
Extrusion rate - mass flow	6 bar 23 °C	130 g/min	-

¹23°C

These figures are only intended as a guide and should not be used in preparing specifications.

Properties Cured

Property	Condition	Value	Method
Movement capability	-	50 %	ASTM C920
Movement capability	-	25 %	ISO 11600
Modulus at 100 % elongation	-	0.4 N/mm ²	ISO 8339
Modulus at 100 % elongation	-	0.38 N/mm ²	ISO 37
Elongation at break	-	250 %	ISO 8339
Elongation at break	-	560 %	ISO 37
Hardness Shore A	-	22	ISO 868
Tensile strength	-	0.50 N/mm ²	ISO 8339-A
Tensile strength	-	1.70 N/mm ²	ISO 37

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Applications

- Exterior Applications
- Sealants
- Silicone Sealants WACKER Brand

Application details

Application fields

- sealing of connecting and expansion joints in the building industry
- suitable for fenestration applications
- especially suitable for perimeter sealing
- sealing of joints between glazing and supporting structure (frames, transoms, mullions)
- Industrial application as sealant in the automotive, aircraft and shipbuilding industries

Processing

The substrate areas that will be in contact with the sealant must be clean, dry and free of all loose material such as dust, dirt, rust, oil and other contaminants. Non-porous substrates should be cleaned with a solvent and a clean, lint-free, cotton cloth. Remove residual solvent before it evaporates with a fresh clean, dry cloth.

For application from cartridges cut thread open, fix nozzle on top and cut to required bead size. The sealant can be applied in beads or layers. It requires moisture in order to cure. The curing time can take longer at lower temperatures, lower humidity or by low volume of air exchange.

It is the responsibility of the user to test the compatibility of the sealant with the adjoining materials. Incompatible substances like coating materials (paints, varnishes and glazes) or organic plasticizer containing rubbers (EPDM, butyl and neoprene) can lead to discoloration or other impairments like loss of adhesion of the sealant. Materials in direct contact with the applied sealant like cleaning agents and materials in indirect contact like gaseous emissions can damage the sealant in its function or change its appearance.

Because of the multitude of these materials, Wacker cannot make a general statement to the compatibility of materials with the sealant. In case of doubt the user shall conduct appropriate preliminary tests.

The use of tooling agents should be avoided if possible. Otherwise, water or a diluted solution of a little neutral soap or alcohol in water should be sparingly applied.

Certification

WACKER® 405 - FAÇADE is certified and classified according to

- ISO 11600 F/G, Class 25LM
- EN 15651-1, Class 25LM F-EXT-INT-CC
- EN 15651-2, Class 25LM G-CC
- ASTM C920, Class 50/50
- EMICODE EC1 PLUS

Adhesion

WACKER® 405 - FAÇADE exhibits excellent primerless adhesion to many non-porous siliceous materials, e.g. glass, tiles, ceramics, enamel, glazed tiles and clinker, concrete and cement, metals e.g. aluminum, zinc, steel, copper, varnished or painted wood as well as many plastics.

Users must carry out their own tests due to the great variety of substrates. The adhesion can be improved in many cases by pretreatment of the substrates with a primer. If adhesion difficulties arise please contact our technical service.

Restrictions on use

WACKER® 405 - FAÇADE must not be used as a secondary sealant in insulating glass units.

WACKER® 405 - FAÇADE must not be used for structural glazing bonding.

WACKER® 405 - FAÇADE is not recommended for use on natural stones, such as marble, granite, quartzite, as it can cause staining. In this case use an alternative grade such as WACKER® 460 – NATURAL STONE.

WACKER® 405 - FAÇADE is not recommended for sealing of aquarium or for long term use under water. WACKER® 121 - AQUARIUM has been specifically developed for aquarium applications.

WACKER® 405 - FAÇADE

Packaging and storage

Packaging

WACKER® 405 - FAÇADE is usually supplied in standard size cartridges that fit all standard caulking guns.

Storage

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

During vulcanization ethanol is released. These vapors should not be inhaled for long periods or in high concentration. Hence, good ventilation of the work place is necessary. Should uncured silicone rubber come into contact with eyes or mucous membranes, the affected area must be rinsed thoroughly with water as irritation will otherwise be caused. Avoid prolonged contact of uncured sealant with the skin - use a dry cloth or paper to remove it.

Keep out of reach of children.

Cured silicone rubber, however, can be handled without any risk to health.

QR Code WACKER® 405 - FAÇADE



For technical, quality or product safety questions, please contact:

Wacker Chemie AG, Gisela-Stein-Strasse 1, 81671 Munich, Germany
productinformation@wacker.com, www.wacker.com

The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.