

# Torggler

## Sealants and Adhesives

# REFRACTORY

Refractory mastic for grouting in situations exposed to temperatures up to 1000 °C.



- Suitable for direct exposure to open flame
- Ideal for sealing and filling joints, cracks and fissures in boilers, chimneys, ovens, mufflers
- Excellent workability also in vertical
- Quick and easy application

### APPLICATION AREAS

Refractory is used for sealing joints, cracks and fissures in boilers, chimneys, ovens, mufflers and wherever there is a need for open flame resistant sealing.

### FEATURES

Refractory is a single-component grey refractory mastic, completely asbestos-free. After complete hardening it forms a rigid mass which, thanks to the formulation based on stabilized silicates – as binders – and a mixture of aluminium, silicon and potassium oxides and hydroxides – as pyrogen-free fillers – maintains a high resistance even when exposed to open flames. The selected fillers do not lead to any loss of volume at high temperatures, thus ensuring a perfect seal of the joint even at temperatures of 1000 °C. The thixotropic consistency guarantees excellent vertical workability, without dripping material which, however, thanks to its fluidity, is easy to work. Once exposed to high temperatures, the colour of the hardened mass lightens and turns into a pale pink colour, but this does not affect the refractory characteristics of the material.

### WARNINGS

The mastic hardening takes place from the outside to the inside. Therefore the waiting time for mass exposure to high temperatures depends on the thickness of the product layer applied. However, it is recommended to wait at least 24 hours after extrusion before heating the hardened mass and to heat it gradually to avoid the formation of bubbles.

Once hardened, the product is rigid and therefore not suitable for elastic sealing.

### INSTRUCTIONS FOR USE

1. Moisten porous substrates such as concrete or bricks before applying Refractory. Previously clean and degrease smooth surfaces.
2. Use special mechanical or pneumatic guns and choose the diameter of the extrusion nozzle according to the size of the joint.
3. Introduce an excess amount of mastic into the joint cavity in order to apply pressure to the material during smoothing and to facilitate filling without voids and better adhesion on the sides of the joint.
4. Be very careful not to introduce air bubbles, as they lead to the formation of preferential routes for water evaporation and can therefore encourage the formation of cracks.
5. Smooth before surface filming, specifically within the first 20 minutes after extrusion.
6. In the case of applications subject to mechanical stress, it is recommended to apply a layer of glass fibre between two coats of product.

### Tools cleaning

While the mass is still fresh, water is sufficient. Once hardened, it can be removed only mechanically.

### TECHNICAL SPECIFICATIONS

PARAMETER AND TEST METHOD	VALUE
Appearance	Dense paste
Colour	grey, its colour lightens after exposure to high temperatures
Density (UNI 8490/2)	2.1 g/ml
Consistency – flow tendency (ISO 7390)	0.0 mm (thixotropic)
Extrusion speed (MIT 30)	> 500 g
Application temperature	not below 0 °C
Surface cross-linking time (MIT 45)	approx. 18 minutes
Complete hardening	1 – 2 days approx.
Operating temperature	up to 1000 °C
Compressive strength after 28 days (EN 196)	> 15 N/mm <sup>2</sup>
Flexural strength after 28 days (EN 196)	> 3 N/mm <sup>2</sup>

\* Torggler's Internal Methods (MIT) are available on request.

DICATIVE CONSUMPTION TABLE		
JOINT SECTION	CONSUMPTION PER METRE	LINEAR METRES MADE WITH ONE CARTRIDGE
10 x 10 mm	100 ml	3.1
Color	Grey	
Packaging	cartridge	
Packaging size	24x310 ml	
Pallet	64 cardboards	

## **STORAGE**

Protect from frost. In the closed original packaging the product is stable for at least 12 months.

The information contained in this document is reported on the basis of our experience and knowledge; therefore, any recommendations and suggestions made are without any guarantee and must be verified before using the product by those who intend to use it, who assume all responsibility that may result from its use since the conditions of use are not under our direct control. In case of doubt, it is always advisable to make preliminary tests and/or ask for the intervention of our technicians. Torggler reserves the right to modify, replace and/or delete the items, as well as to change the product data in this document without prior notice; in this case the indications given here may no longer be valid. Always refer to the latest version of the data sheet, available at [www.torggler.com](http://www.torggler.com). Version 28.07.2021.