

Torggler

Sealants and Adhesives

ACRYL FIRE RESISTANT

Acrylic sealant for applications subject to fire regulations up to EI 240.



- Prevents smoke and flames from entering emergency areas
- Certified for ceiling applications
- High resistance to ageing
- Paintable



APPLICATION AREAS

Sealing linear joints in applications subject to fire regulations on mineral substrates with density and thickness equal to or greater than those tested.

MAXIMUM ATTAINABLE THICKNESSES

The joints tested by C.S.I. had the following geometries (see Test Reports N°CSI1472FR of 28/05/09 and CSI1761FR of 05/07/12, available on request): Wall thickness (aerated, autoclaved concrete with a density of 500 kg/m³): 150 mm.

	Width x depth of joint	Orientation	Joint class		
A11	10×10 mm verticale	A	EI160	E240	V - X - W 10
C1	10×10 mm verticale	B	EI180	E240	V - X - W 10
A12	20×10 mm verticale	A	EI60	E240	V - X - W 20
C3	20×10 mm verticale	B	EI180	E240	V - X - W 20
A13	30×20 mm verticale	A	EI120	E240	V - X - W 30

C4	30x20 mm verticale	B	EI240	E240	V - X - W 30
A14	40x20 mm verticale	A	EI90	E240	V - X - W 40
C2	40x20 mm verticale	B	EI240	E240	V - X - W 40
D5	30x20 mm orizzontale	A	EI120	E240	T - X - W 30
E5	30x20 mm orizzontale	B	EI240	E240	T - X - W 30
D6	40x20 mm orizzontale	A	EI120	E240	T - X - W 40
E6	40x20 mm orizzontale	B	EI240	E240	T - X - W 40

*Orientation A: Sealing only on the side not exposed to fire. Orientation B: Sealing on both sides.

As Acryl Fire Resistant has also been tested in a horizontal construction (horizontal oven) in accordance with EN 1366-4, it can be used on both wall-to-ceiling and horizontal wall joints.

Note: For more details on joints, see the official classification reports cited.

For all geometries, sealing was carried out by arranging the joint both horizontally and vertically and configuring it either symmetrically (i.e. sealing both sides of the wall) or asymmetrically (sealing only the side not exposed to fire).

Polyurethane foam was used as the joint backing material.

FEATURES

Acryl Fire Resistant is a single-component acrylic sealant consisting of acrylic polymers dispersed in a water base together with selected minerals. This formula gives the hardened product a high resistance to fire. When the product is applied, the water base evaporates leaving a flexible, plastic mass with excellent resistance to ageing. Acryl Fire Resistant adheres to damp surfaces, does not drip and is easy to smooth. It can be applied indoors or outdoors but only in places where there is no continuous contact with water. Acryl Fire Resistant can be coated with water-based paints or coatings. The product is certified as EC 1 Plus by GEV in terms of very low emissions of volatile organic substances.

WARNINGS

The material cures through water evaporation: the sealant loses its initial tackiness within 20 to 120 minutes, depending on environmental conditions. Low temperatures and high relative humidity will slow down hardening. High temperatures and low relative humidity will accelerate hardening. Do not apply Acryl Fire Resistant when it is about to rain: the applied sealant, not yet cured, can be washed away. Sealant that has not fully cured will be damaged by frost.

INSTRUCTIONS FOR USE

Joint size: Certified joints must follow the geometry given in the official product classification reports.

1. The sides of the joint must be solid and clean. Acryl Fire Resistant does not require a primer. It is advisable to wet porous surfaces beforehand. During hot weather, wet the substrate. It is also advisable to prime critical surfaces with a primer coating consisting of one part sealant to 10 parts water. This will improve adhesion of the sealant. Deep expansion joints must be plugged with suitable pre-forms.
2. Tape along the sides of the joint.
3. Use a mechanical or a pneumatic gun loaded with the bag to inject the product into the joint. Use an extruder nozzle diameter which matches the joint to be filled.
4. We recommend that you overfill the joint cavity with sealant.
5. When you smooth the sealant apply pressure to force the sealant into the joint. This will ensure that the joint is filled fully without leaving any gaps and that the sealant adheres completely to the sides of the joint. Smooth off before the sealant has a chance to form a surface film.
6. Remove the tape.

Cleaning

Tools used with Acryl Fire Resistant are easy to clean with water while the product is still soft. Hardened product

can only be removed mechanically or by using an organic solvent (e.g. toluene, acetone).

TECHNICAL SPECIFICATIONS

Parameter and test method	Value
Density (UNI 8490/2)	1,70 g/ml
Application temperature	+5 °C to +30 °C
Skin-over time (MIT 45*)	approx. 30 minutes
Complete hardening (at +23 °C and 50 % R.H.)	approx. 10 days (for a 10×10 mm joint)
Tendency to flow (EN ISO 7390)	< 3 mm (non-drip)
Operating temperature	-25 °C to +85 °C
Shore A hardness (EN ISO 868) Shore A/max	approx. 50
Shore A hardness (EN ISO 868) Shore A/15	approx. 10
Extension to break (DIN 53504 – Punch S3)	approx. 700%
Tensile strength at break (DIN 53504 – Punch S3)	0,20 MPa
Modulus of elasticity at 100% (DIN 53504 – Punch S3)	0,27 MPa
Percentage elongation at break (EN ISO 8339) concrete substrate	approx. 200%
Modulus of elasticity at 100% elongation (EN ISO 8339) concrete substrate	0,1 MPa
Tensile strength by traction (EN ISO 8339) concrete substrate	0,1 MPa
Maximum operating elongation	10%
Volume variation (EN ISO 10563)	approx. 23%
Paintability	When hardened, the product can be painted with water-based paints.
Fire resistance class (EN 13501-2)	E (integrity): 240 for all the geometries tested. EI (integrity and insulation): 240: for all symmetrical geometries from 60 to 240: for all asymmetrical geometries (see Test Report CSI1472FR)
Fire reaction class (EN 13501-1)	B-s1, d0

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

Color	Grey, White
Packaging	foil bag
Packaging size	20x600 ml
Pallet	36 cardboards

CONSUMPTION


CONSUMPTION GUIDE TABLE		
JOINT THICKNESS X DEPTH (MM)	CONSUMPTION PER METER	METERS COVERED WITH ONE BAG 550 ML
10×10	100 ml	6
20×10	200 ml	3

30×20	600 ml	1
40×20	800 ml	0,75

STORAGE

Protect against frost. In the original unopened packaging and stored at temperatures between +5 °C and +35 °C, Acryl Fire Resistant is stable for at least 24 months. Not completely emptied bags can be stored for about 3 months, if closed properly.

CERTIFICATIONS

			
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Torggler S.r.l., Via Prati Nuovi 9, I – 39020 Marlengo (BZ) DoP n° 0047/14 EN 15651-1:2012 NB n° 1488			
EN 15651-1:2012: Sealants for façade for interior applications only (F-INT)			
Reaction to fire	B – s1, d0	EN 15651-1:2012	
Release of chemical dangerous to the environment and health	NPD		
Durability	Pass		
Water and air tightness	Resistance to flow		≤ 5 mm
	Loss of volume		≤ 45%
	Tensile properties (at break) at 23°C	≥ 25%	

LEGEND FOR CLASSIFICATION ACCORDING TO EN 15651

F	Sealant for non-structural joints for the building trade, on facades. (F = facade elements)
INT	Sealant for internal use only.
EXT-INT	Sealant for internal and external use.
CC	Sealant tested for cold climates. (CC = cold climate - testing done at -30 °C)
G	Sealant for non-structural joints on glazing and door and window frames. (G = glazing)
S	Sealant for non-structural joints in bathroom installations. (S = sanitary joints)
XS	Sealant for joints in bathroom installations with improved performance.
PW	Sealant for non-structural joints on pedestrian walkways. (PW = pedestrian walkways)

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. Version 01.07.2024.