

ZZ® 381-f Fire Protection Casting Compound**Technical data sheet**

Trade name:	ZZ® 381-f Fire Protection Casting Compound
Description:	2-component polyurethane foam system stored in a cartridge, with halogen-free flame retardants; intumescent.
Implementation areas:	Waterproof fire protection casting compound as a system component for fire protection seals up to EI 30 for penetrations in the vehicle floor
Product group:	IN16 – Interior seals EX12 – seals in outdoor areas
Certificates:	<ul style="list-style-type: none">• Classification report no. 17/0356, Currenta• Prüfbericht 191611, ASTM E162• Prüfbericht 191704, ASTM E 662
Requirement set:	R22, R23 according to EN 45545-2
Hazard level:	HL1, HL2, HL3
Colour:	Red-brown
Content:	380 ml
Transport / storage:	Dry and only in the original packaging
Storage temperature:	5 °C to 30 °C
Storage stability:	6 months at 23 °C/ 50 % rel. humidity, See imprint on cartridge for expiry date
Application temperature:	15 °C to 30 °C, recommended: 20 °C to 25 °C
Foam yield*:	Up to 0.45 litres
Setting time:	approx. 120 s
Reaction temperature* (heat generation during foam reaction):	≤ 85 °C
Bulk density (material has fully reacted):	$\rho \geq 1100 \text{ kg/m}^3$
Safety notices:	Please observe the safety data sheet.

* Changes depending on the material temperature and ambient temperature.

ZZ[®] 381-f Fire Protection Casting Compound

All of the following information refers to the fully reacted "Fire Protection Casting Compound ZZ 381-f"

Behaviour in the event of fire

Smoke generation according to EN ISO 5659-2: $D_s \text{ max (-)} = 98$

Burning behaviour (Oxygen index) according to ISO 4589-2: $OI = 55.0 \%$

Conventional index of toxicity according to NF X 70-100-1 /-2: $CIT_{NLP} = 0,28$

Physical construction material / product characteristics

The following specifications do not represent guaranteed product characteristics. They must, therefore, be regarded exclusively as information intended to serve as guideline values.

Impermeability: Watertight to 0.5 bar (at ≥ 60 mm fill depth)

Pressure tightness: Pressure-tight to 0.5 bar (at ≥ 60 mm fill depth)

ZZ® 381-f Fire Protection Casting Compound**Other product characteristics****Influence of coating materials and chemicals**

The following paints and occasional, brief influence of chemicals do not cause any change in the technical fire protection properties:

Coating materials: Dispersion paint, alkyd resin paint, polyurethane acrylic lacquer, epoxy resin lacquer

Solvent/oil: Trichloroethylene, xylene, acetone, white spirit, butyl acetate, butanol, domestic fuel oil

Gaseous chemicals: Brief storage over concentrated ammonia solution

Comment: Environmental conditions with high humidity levels and/or some coating materials and chemicals can cause minor lightening of the colour.

Contact with metals and plastics

The surface consistency of aluminium, stainless steel, galvanised steel and plastics made of polyethylene and polyvinyl chloride is not negatively affected upon contact with "Fire Protection Casting Compound ZZ 381-f".

All the information in this leaflet is based on current technical knowledge and experience. Details on processing and application must be checked on a project-by-project basis due to the variety of possible influences.

If the application for which our products are used is subject to a government agency approval obligation, then the user is responsible for obtaining this approval. We would be pleased to respond to any enquires you might have.

The information in this document and declarations of Karl Zimmermann GmbH in conjunction with this document do not constitute any assumption of a guarantee. Guarantee declarations require the separate, express written declaration of Karl Zimmermann GmbH.

The conditions specified in this data sheet represent the characteristics of the delivery object, they do not represent any specific values. Specific values must be separately determined on a case-by-case basis.

We reserve the right to adapt the product to technical progress and to new developments.

In all other aspects we refer to our general terms and conditions.