

INSTALLATION GUIDE

PD-IsoMix 137 M55h

Insulation castable for spouts and orifice rings

Safety and health

Pay attention to the Material Safety Data Sheet (MSDS) before installing this product. In the MSDS all relevant information regarding potential health, safety and environmental hazards and protective measures for these hazards can be found. The MSDS also specifies the appropriate personal protective equipment to be used when installing this product.

Storage and shelf life

The optimum storage temperature for goods in their original, unopened packaging ranges from 15 to 25 °C. Keep in a dry place away from sunlight. The goods should be utilised within months. Inappropriate storage may lead to the formation of lumps, in which case the material must no longer be used since parts of the binder have already reacted. Do not stack more than 2 pallets on top of each other.

The standard material to insulate the metal casing from the hot temperatures of the molten glass and to support the weight of the spout and the molten glass is packed between the spout refractory and the metal casing a dry diatomaceous earth, commonly known as Sil-O-Cel. Sil-O-Cel has great thermal properties, but there is no real protection against the glass leak, plus not easy to pack the spout tightly with it.

The PD-IsoMix 137 M55h material is a lightweight castable designed for orifice ring and spout insulation. It is a flowing castable, which allows the orifice ring or the spout refractory to be placed in the casing, and then the insulating material could be poured around it, filling even the smallest crevices. Setting time is around 1-2 hours on room temperature. In case of glass leakage, it stops the flow of the hot glass immediately, prevent the bigger damage.

Physikalische Richtwerte / physical characteristics

Richtwert / characteristic	Norm / Standard	Einheit / Unit	Typisch / Typical	Anmerkung / Remark
Rohdichte / bulk density	DIN EN 993 – 1	g/cm ³	0,4	
Kaltdruckfestigkeit / Cold crushing strength	EN ISO 8895:2006	MPa	14	
Wärmeleitfähigkeit bei / Thermal conductivity at	DIN EN 993-14-15	W/mK	0,14	540°C
			0,16	815°C
			0,19	1093°C

Chemische Richtwerte / chemical characteristics

DIN EN ISO 12677	Einheit / Unit	Typisch / Typical
Al₂O₃	%	55
SiO₂	%	30
CaO	%	11
Fe₂O₃	%	1,0

Installation

Mixing liquid: drinking water (temperature: 15 °C to 25 °C) Volume of mixing compound needed: 90-100 litres /100 kg dry material. Mixing device is a clean gravity mixer, free from impurities.

Dry mixing time is 1 – 2 minutes, wet mixing: 2 - 3 minutes, depending on mixing device.

Pour the wet castable into the space between the spout refractory and the spout casing.

The surface of the castable is smoothed before allowing it to set and harden for 1 hour. No additional heating is required.

Casing	Spout	Required material (kg)
81	81	50
144	144	25
503	503	50
515	515	50
555	555	65
555	503	65
555	515	65
585	503	90
585	515	75
585	585	65