

KBS® Mortar

Application instructions for sealing cable and utility penetration

Introduction

KBS® Mortar is a special light-weight mortar with low compressive strength, which easily allows drilling holes for additional cables.

KBS® Mortar, contrary to other mortar based cable penetration seals, is not shrinking during the setting process. The normal shrinking effect is overcompensated by a swelling effect of about 3% thus avoiding shrinkage or adhesion cracks.

KBS® Mortar installations are suitable for penetrations where many cables pass at random. The thickness of the sealing is normally 20 cm, but in several countries it can be reduced further due to less severe testing requirements.

Surface preparation

A thorough cleaning of the cables is not required, however cables in the area of the penetration seal shall be free of oil, grease and dust. Oil and grease should be removed with dry rags (no solvent). Using a broom or vacuum cleaner to remove heavy layers of dust is sufficient.

All masonry surfaces getting in touch with the mortar must be free of loose dust, dirt or oil and should be wetted prior to the application of the mortar.

Wall installation

Required equipment for the installation of **KBS® Mortar**:

- **KBS® Mortar**, Water
- Mixing and pumping equipment: Putzmeister Spray Boy
- Shuttering material: wooden board or hard foam board (XPS)
- Wall hooks, Mason's trowel, Hand-mixer (e. g. equipment from Sata) or drilling machine, 1 bucket, 1 brush

One side has to be shuttered with suitable materials such as hard foam panels (for instance XPS) held in place by a wooden lath. Before starting the installation you must calculate the quantity of mortar which needs to be prepared for the respective opening.

Preparation of the mortar with the necessary quantity of water is made by hand or by using a mixer (e. g. paint mixer from SATA) or a pump type mortar mixer/appliator such as Putzmeister Sprayboy for example.

Pour about half of the indicated amount of water into mixing container and start mixing. Add rest of water slowly. Water/dry mortar ratio for various types of application:

	for manual application (small openings)	for pump application (walls and floors)	for pouring application (floors)
25 kg dry mortar	16 l water	17 l water	18 l water
approx. yield	35 – 36 l	36 l	36 l
1 kg dry mortar	0.65 l water	0.70 l water	0.72 l water
approx. yield	1.4 l – 1.5 l	1.5 l	1.5 l

When using **KBS® Mortar** at the correct consistency it will not run or sag thus allowing easy build-up of the seal.

Start to apply **KBS® Mortar** from the open, non-shuttered side of the opening:

- by hand using a trowel
- by pump application using a hose with a nozzle opening of Ø 20 mm.

Where no additional shuttering in front of the opening is used (for instance in smaller openings), the mortar may be levelled out with a trowel after 1 hour of setting. However the setting time depends on the room temperature and the ratio of water dry mortar used when preparing the mortar mix. Otherwise the shuttering may be removed at the earliest after 24 hours.

If voids appear on the mortar surface after having removed the shuttering, the surface can be smoothed with freshly prepared mortar.

Floor installation

Only the underside of the floor opening needs to be shuttered with the same material as we have learned before for wall installations. Remaining gaps in the shuttering are closed by a **KBS® Mortar** mix prepared at a thicker consistency than recommended above just by using less water. Apply this heavy mix by trowel over all remaining openings and allow for setting during at least one hour.

Start to apply **KBS® Mortar** from above:

- by hand using a trowel
- by pump application using a hose with a nozzle opening of Ø 20 mm.

Then level out to a perfect finish (by using a trowel or brush). Allow to dry and to cure for at least one week (or even longer for very large openings) before removing the shuttering.

Attention: Do not step on the floor penetration seal! If walking on the floor penetration seal is inevitable, use any suitable cover, for instance a steel grating.

All products marked with ® are trademarks of Wolman Wood and Fire Protection GmbH

This document, or any answers or information provided herein by Wolman Wood and Fire Protection GmbH, does not constitute a legally binding obligation of Wolman Wood and Fire Protection GmbH. While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. It does not relieve our customers from the obligation to perform a full inspection of the products upon delivery or any other obligation. The claims and supporting data provided in this publication have not been evaluated for compliance with any jurisdiction's regulatory requirements and the results reported may not be generally true under other conditions or in other matrices. Users must evaluate what claims and information are appropriate and comply with a jurisdiction's regulatory requirements. No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale.

Application Instructions KBS® Mortar | Vers. 1 | 06.08.2021

For further information:

Wolman Wood and Fire Protection GmbH, Robert-Hansen-Straße 1, 89257 Illertissen, Germany
 Phone +49 7303 9579108, Fax +49 8621 9038912, info@fire-protectors.com, www.fire-protectors.com

A brand of
MBCC GROUP