

A curse to weeds and all-rounder

POLYVEST® offers broad application possibilities: From sand filled mortar to adhesives



No weeds between the tiles thanks to POLYVEST®

Not a problem! POLYVEST® can help. As an additive in the grout that is applied as a filler between tiles or pavers (natural-stone or concrete blocks), POLYVEST®, a binding agent from the Business Line Coating & Adhesive Resins. The formula comprises other Evonik components and additives in addition to POLYVEST®, as well (Table 1).

Mortar composition is based on inorganic material like quartz sand and wollastonite compounded with mixture PM1 containing POLYVEST® (Table 1). Depending on kind and amount of inorganic material an amount of 2 –7 wt % of mixture PM1 containing POLYVEST® is used.

The replacement of Cobaltoctoate with Mn-Octoate and Zr-Octoate leads to better through dry time and higher bending strength after 7 days drying (Table 2, Figure 2).

Table 1: mixture containing POLYVEST®

mixture containing POLYVEST®	PM1
POLYVEST® 110	94.6
DYNASYLAN® 6490	3
TEGO® WET 500	1.4
Cobaltoctoate	1
	100

mixture containing POLYVEST®: 2–7 wt. %
Inorganic material: 93–98 wt. %
Quartz sand H 31: ø particle size 0.37 mm
Quartz sand H 35: ø particle size 0.19 mm
Wollastonite

Fig. 1: Bending strength after 1 day and 7 days drying time [N/mm²]

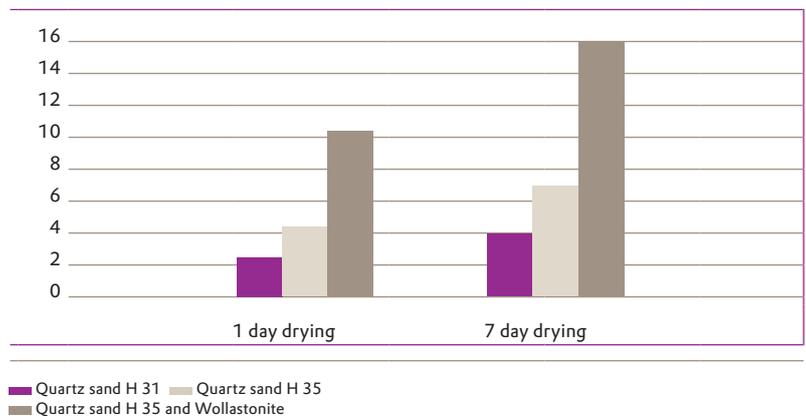
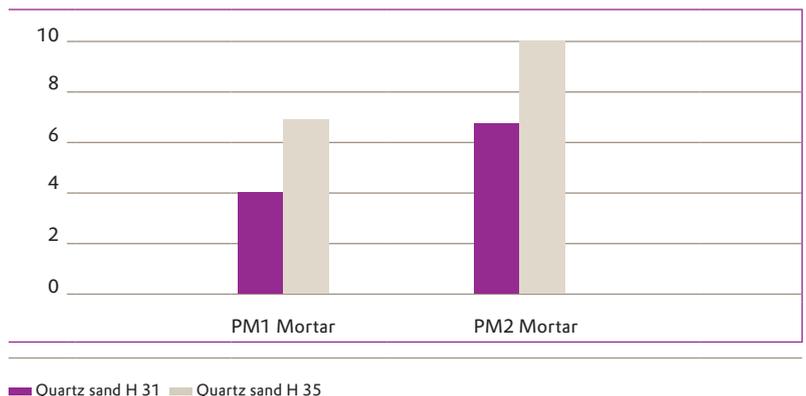


Table 2: mixture containing POLYVEST® with different driers

mixture containing POLYVEST®	PM1	PM2
POLYVEST® 110	94.6	92.8
DYNASYLAN® 6490	3	3
TEGO® Wet 500	1.4	1.4
Cobaltoctoate (10 %)	1	-
Mn-Octoate (10 %)	-	1.8
Zr-Octoate (12 %)	-	1
	100	100

mixture containing POLYVEST®: 3 wt. %
Quartz sand: 97 wt. %

Fig. 2: Bending strength after 7 days drying time in [N/mm²]





Product Story: A festively decorated patio and the barbecue ready to go. The perfect setting for a balmy summer evening—until you spot unsightly weeds pushing their way up between the tiles or pavers.

It's easy enough for do-it-yourselfer to use this ready-made tiling grout. First, the tiles or stones are wetted with water, the grout based on POLYVEST® is spread across the tile surface using a broom, and finally water is applied once more to "sludge" the grout into the joints until they are properly filled. The "sludging" and compression process makes it possible to fill in even narrow gaps, so that weeds won't even begin to sprout. POLYVEST® is a liquid polybutadiene using atmospheric oxygen for curing and so compounds with the quartz sand. "And unlike other two-component systems available on the market, it allows water to seep through the joints rather than collect on the surface. Furthermore, this product is highly environmental-friendly.

But POLYVEST® can do even more than just ward off weeds. Its versatile applications include its use in adhesives, sealants and as acoustic reduction mass in the automotive industry, as a plasticizer in rubber applications and flexographic printing plates, in release agent for PUR foams, for resin modification, in additives in the coatings and plastics industry, and as a soil stabilizer.

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