



M54 is a rapidly setting screed binder on cement basis to produce composite screeds, screeds on separation layers and floating screeds. Moreover M54 is suitable for the production of cement screeds with a high compressive strength.

PROPERTIES

- Ready to receive tiles after 24 hours
- Strongly hydrophobic (high protection against re-soaking)
- For interior and exterior use
- Long working time
- Can be pumped

AREAS OF APPLICATION

- to produce the following types of cement screeds quickly ready to be covered: screeds on separating layers, composite screeds, screeds on insulation layers and heated screeds
- for use in wetrooms
- to repair and restore existing cement screeds
- to repair cement-based substrates prior to installation
- to set floor anchorings and fence posts

SUBSTRATE PREPARATION

The substrate must be in the following condition:

- dry, clean and frost-free
- stable
- free from grease, paint, cement laitance, separating agents, sinter layers and loose particles

Composite screed

- mix up bonding course with D10 screed admixture and water (at a ratio of 1:1)
- apply bonding course to the pre-wetted substrate by adding premixed M54 and screed sand with a grain size of 0-8 (mixing ratio of 1:5) and brush in thoroughly

The installation of the screed is performed fresh on fresh onto the moist bonding course.

Screed on separation layer

When installing screed onto a suitable separation layer no bonding course is required.

COVERABILITY

Screeds made with M54 are ready to be covered after the following time intervals between installation and tiling or after the following maximal residual moisture contents (CM-measurement) have been reached:

type of covering	unheated screed
ceramic tiles	≥ 24 hours
natural stones	≤ 2.0- 2.5%
elastic and textile coverings	≤ 2.0%

COVERABILITY

wood flooring, laminate flooring and wood block $\leq 2.0\%$

heated screed

ceramic tiles and natural stones $\leq 2.0\text{--}2.5\%$

elastic and textile coverings $\leq 1.8\%$

wood flooring, laminate flooring and wood block $\leq 1.8\%$

All specifications apply for composite screeds, screeds on separation layers and floating screeds.

APPLICATION

For the mixing of the screed mortar standard screed mixers or mixing and feed pumps are used. In the event of the working process being interrupted mixer, pumps and pipes must be thoroughly cleaned immediately.

CONSUMPTION

Mixing ratio 1:5

M54 binder 3.3 kg/ m²/ cm

screed sand 0- 8 mm 16.7 kg/ m²/ cm

water ≤ 0.45 l/ kg binder

Mixing ratio 1:4

M54 binder 4.0 kg/ m²/ cm

screed sand 0- 8 mm 16.0 kg/ m²/ cm

water ≤ 0.45 l/ kg binder

IMPORTANT ADVISORIES

When installing screeds all existing standards and guidelines in their current versions must be observed.

When used in interior areas M54 must be protected from draughts while curing.

Heated screeds should not be heated earlier than 3 days after installation. This ought to be done not exceeding an initial flow temperature of 25 °C. This must be maintained for 3 days. Thereafter the heating system has to be operated with the maximum flow temperature for a period of 4 days.

The moisture of the aggregates must be taken into consideration when calculating the required quantity of mixing water.

Prior to fitting tiles or other coverings a moisture content measurement (CM-measurement) must be taken to check the residual moisture content. The maximal permissible residual moisture for the respective flooring coverings must be observed.

M54 is highly hydrophobic. However, this is still no substitute for a waterproofing above or below the screed construction.

IMPORTANT ADVISORIES

You can view or download the safety datasheet at www.botament.com.

TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Classification according to (EN 13813)	mixing ratio		CT-C35-F6 CT-C40-F7
Fire behaviour		A1	DIN 13501-1
Mixing ratio	l	≤ 9	water/20 kg
Working time	minutes	~ 120 - 180	
Layer thickness ¹⁾			
Accessible after	hours	~ 4 - 6	
Application conditions	°C	> 5 < 25	
Compressive strength ²⁾	N/mm ²		
24 h		> 10	
7 d		> 20	
28 d		> 35	
Flexural strength ²⁾	N/mm ²		
24 h		> 2	
7 d		> 4	
28 d		> 6	

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

1) at least 3 times the grain size

2) The values apply to the MV 1 : 5 and may vary depending on the grading curve of the aggregates and the mixing water quantity.

base	rapid cement, additives
delivery form	20 kg bag (40 x 20 kg/pallet)
Storage	Can be stored in cool and dry conditions for at least 9 months in original unopened packs. Protect from frost.
Cleaning agent	when fresh: water, when fully cured: mechanical

Note: The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by Botament's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2300016012]