

Note on English translation / Hinweise zur englischen Fassung

This is a translation of the technical information sheet valid in Germany.

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Floor Systems

VT15.de

Technical Information 2020-03

Knauf Flowing Screeds

Determination of the Slump Flow

Procedure and Handover Protocol for 1.3 | PFT Consistence Checking Tin

Procedure

General

Application consistence

The correct water quantity must be added to the mortar for professional screed application. Addition of excessive water leads to a surface of the hardened screed that is too soft and generally results in complaints from the contractor or the following trades (floor covering specialists).

On the other hand, adding too little water does not negatively affect the quality of the screed, however, application and levelling is made more difficult and the required evenness may not be achievable.

Considering this aspect (assurance of the quality of the screed bay by avoidance of excessive water), the screed mortar should initially be set to a thick flowing mass (lowest limit of the slump flow) and when necessary more water can be added to set the "ideal consistence".

Note

The application consistence of the mortar is determined by the water quantity added. The consistence should be set so that the mortar flows but no "watery slurry" separates when pouring.

Determination of the slump flow

Procedure

Slump flow (also referred to as slurry spread) is used as a method for setting the consistence.

The slump flow is determined using a 1.3 l PFT consistence checking tin, by placing the tin filled with mortar on the Schrenzlage synthetic coated kraft paper, releasing the base and then lifting the tin. The diameter of the spreading material is the slump flow. It is measured, at the earliest, 10 seconds after lifting the tin.



Image 1: Tools



Image 2: Fill the consistence checking tin with mortar



Image 3: Lift the consistence checking tin

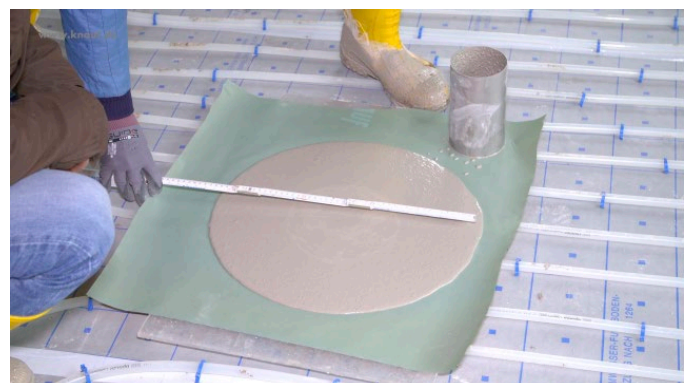


Image 4: Measurement of the diameter

Determination of the slump flow

Data on application consistence

Please refer to the table below for the ideal consistence.

These values are only reference values (not strictly defined for application), as the ideal consistency depends on the age of the material, on the intensity of the mixing of the mortar (dependent on the machine technology used) and is also influenced by the screed thickness.

Table: Data on application consistence

Material	Max. mortar temperatures during pouring	Open times for application	Dry mortar requirement		Slump flow, ideal consistence (empirical values)	Product data sheet www.knauf.de
			per cm screed and m ²	per m ³ wet mortar		
FE Sprint	25 °C	approx. 30 min	approx. 19 kg	approx. 1.9 t	39 – 42 cm ¹⁾	F327.de
FE Eco	25 °C	approx. 40 min	approx. 19 kg	approx. 1.9 t	38 – 43 cm ¹⁾	F328.de
FE 50 Largo	25 °C	approx. 60 (40 ³⁾) min	approx. 19 kg	approx. 1.9 t	38 – 43 cm ¹⁾	F322.de
FE 80 Allegro	32 °C	approx. 60 (40 ³⁾) min	approx. 19 kg	approx. 1.9 t	40 – 45 cm ¹⁾	F325.de
FE 25 A tempo	40 °C	approx. 40 min	approx. 19 kg	approx. 1.9 t	40 – 45 cm ¹⁾	F321.de
FE Fortissimo	25 °C	approx. 60 min	approx. 19 kg	approx. 1.9 t	37 – 40 cm ¹⁾	F326.de
FE Fire	25 °C	approx. 40 min	approx. 19 kg	approx. 1.9 t	38 – 43 cm ¹⁾	F323f.de
N 340	32 °C	approx. 30 min	approx. 16 kg	approx. 1.6 t	max. 57 cm ²⁾	F413.de
N 440	32 °C	approx. 30 min	approx. 18 kg	approx. 1.8 t	52 – 56 cm ²⁾	F422.de

1) With larger screed thicknesses (exceeding 50 mm) as well as with the initial pour of a heating layer screed, the mortar should be a little thicker, i.e. when compared to the normal setting (ideal slump flow at 35 mm screed thickness) the slump flow may be reduced by about 5 cm.

2) With larger layer thicknesses the slump flow or the water quantity should be reduced if permitted by the levelling characteristics.

3) Applies primarily for the German federal states of Bremen, Nordrhein-Westfalen, parts of Niedersachsen and Rheinland-Pfalz.

The screed may not lose water during application.

Handover protocol for PFT consistence checking tin

The slump flow is determined using a 1.3 l PFT consistence checking tin.

The installation specialist was provided with a 1.3 l PFT consistence checking tin to determine the slump flow.

Please keep this document!



Place / Date

Signature (Knauf employee)

Place / Date

Signature (Installation company)

Protocol for determination of the slump flow

Client _____

Specialist floor screed installer _____

Building / property _____

Building phase _____

(e.g. component, storey, apartment, section) _____

Requirements See included working instructions

Documentation / result

Description	Measurement 1	Measurement 2 ¹⁾	Measurement 3 ¹⁾
Poured section (e.g. apartment, storey, room)			
Slump flow result in cm			
Name of the tester			
Date			

Description	Measurement 4 ¹⁾	Measurement 5 ¹⁾	Measurement 6 ¹⁾
Poured section (e.g. apartment, storey, room)			
Slump flow result in cm			
Name of the tester			
Date			

1) If required, e.g. for several poured sections or stories

Confirmed

Place / Date

Specialist floor screed installer / contractor

Stamp / signature

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