

# RSS Flüssigboden standard mix design made from one source material for various construction sites

## General remarks

According to the RSS language use, the term "standard mix design" refers not primarily to properties, but to the source material. When RSS Flüssigboden® is produced from one source material according to one mix design, and different construction sites are supplied with this type of liquid soil, then we speak of a standard mix design.

The application of standard mix designs can be considered in the following cases:

- Supply of small construction sites, if the use of a mobile plant is not economic.
- Processing of surplus material or large quantities
- Processing of recycling materials, as far as ecologically sound

Caution: The producer or the customer, in cooperation with a technical planner, has to conduct the testing of the functionality of the used mix design for suitability under conditions of the placed material and for the safe exclusion of subsequent structural damage as well as for environmental safety, and it has to be proven if necessary. Likewise, depending on the given standard, it may be necessary to ensure or prove soil similarity.

The requirements for RSS Flüssigboden® from mix designs are usually higher than for normal liquid soil. It has to be ensured that the RSS Flüssigboden® has the required temporarily effective and technologically relevant properties, and defined end properties, and that differences between these properties and the surrounding soil's properties reliably exclude possible construction and consequential damages.

### How an RSS Flüssigboden® standard mix design is developed

We obtain a sufficient quantity of source material (depending on the desired application at least 20 litres, with protocol of sample collection) and the cement to be used (CEM I R). Additionally, the customer provides the desired nominal values of the mix design properties. For this purpose, we use the form "Mix design Specification". In addition to the nominal values stated by the customer, the nominal values required for the liquid soil from our perspective are also relevant. We produce liquid soil in the soil laboratory, check the processability, and test the test specimens we produced. If the results are meet the requirements, you get a preliminary mix design in hard copy. An employee of our company adjusts the mix design at your company/site. The quality of the production is ensured by self-monitoring / external monitoring.

Rezeptur-RSS Flüssigboden®		Konsistenz: kf	V 1.8
<b>Auftraggeber:</b> Muster GmbH Werk xxx Musterweg 47 12345 Stadt			
<b>mit dem Grundmaterial:</b> Sand 02 (Ratanca), SE in Anlehnung an DIN 18196			
<b>Probenahme:</b> durch Herrn Mustermann, Muster GmbH			
<b>Rezepturenzeichnung:</b> Mu-St-Std 1 kf			
<b>StammID:</b> 15-165 A-B-15-165-2 A-B			
<b>Sollwerte</b>			
Einsatzle Druckfestigkeit nach 28 d		0,4-0,4 N/mm²	
Weitere Sollwerte, je nach Anforderung		xxx	
Standardrezeptur(ein Ausgangsmaterial, mehrere Baustellen)			
<b>Rezeptur nach RAL GZ 5077 - A</b>		<b>Rezeptur-Nr.: 999-15 kf</b>	
Aufbereitetes Grundmaterial/trocken		1556 kg/m³	
RSS Breitband FBC Nr.: 33.0.12345.1		33 kg/m³	
BCE: CEM I 42,5 R		33 kg/m³	
Gesamtwasser (inkl. Eigenfeuchte)		333 kg/m³	
Max. Toleranz Eigenfeuchte*		2 %	
Ausbreitmaß		60 ± 2 cm	
Gültigkeit dieser Rezeptur bis <sup>1)</sup>		22.01.2016	
Leipzig, den 22.01.2015			
I.A. Dipl.-Geologe J. Dejens			
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Standard mix design for RSS Flüssigboden

## Advantages

- Easy storage
- Use of only one mix design
- Mix design adjustment on site
- Testing institute accredited by RAL
- External monitoring person accredited by RAL
- Developers of RSS Flüssigboden
- Successful application of standard RSS Flüssigboden on many construction sites

## Data

- Costs basic mix design: €1092 net, additional costs possible
- Validity of mix design: 1 year
- typical qu value after 28 d: 0.08-0.3 N/mm<sup>2</sup>
- typical EV2 value after 28 d: >45 MN/m<sup>2</sup>
- typical kf value after 28 d: < 1.00E-08 m/s

If required, the properties can be adjusted within limits.



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