

Riverstone® 1300

Methacrylate resin binding agent for reactive resin concrete,
 Cold-hardening, low viscosity

Application: Riverstone® 1300, is a cold hardening, low –viscosity reactive resin based on methyl methacrylate. It is used as the standard binding agent for reactive resin concrete.

Properties: Riverstone® 1300 is a reactive methacrylate resin. After being mixed with a dry mixture made of fillers and hardener, it solidifies a reactive resin concrete with a low binding agent content and excellent light, water and weathering resistance.

Characteristic data:

Properties when delivered:

	Measurement methods	values	units
Density, 20 °C	DIN 51757	0,968	g/cm ³
Refractive index, n _D 2	DIN 53491	1,42 – 1,43	
Colour number	DIN 53409	< 50	APHA
Acid number	DIN 53402	< 1	
Viscosity	DIN 51550	~10	mPa·s
Outflow time, ISO-beaker 3 mm	ISO 2431	35 – 45	sec.
Flash point	DIN 51755	+ 10	°C
Polymerisation *	100 g filling-substance	0-1	mm
	+ 2 g Riverstone® H	35 – 45	min
	+20 g Riverstone® 1300		
Pot life *	10 kg filling - substance	0-4	mm
	+0,2 kg Riverstone® H	10 – 15	min
	+1 kg Riverstone® 1300		

* Test quantity in standard –climate condition

Processing: Riverstone® 1300 is processed to reactive resin concrete by a dry mix consisting of 100 parts by weight filler and 2 parts by weight Riverstone® H. The amount of the consumption of Riverstone® 1300 depends on the content of flour grain, the maximum grain size and grain shape of the padding material.

Content of Riverstone® 1300 in

Screen characteristic	parts by weight	% by weight	Kg/m ³ Riverstone® concrete
0- 1 mm	12 – 15	10,5 – 12,8	247 – 298
0- 2 mm	10 – 14	8,9 – 12,1	212 – 282
0- 4 mm	8 – 12	7,3 – 10,5	145 – 247
0- 8 mm	7 – 11	6,4 – 9,8	154 – 230
0-10 mm	6 – 10	5,6 – 8,9	136 – 212

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At room temperature the pot time is about 10 - 15 minutes and the hardening – time ca. 40 minutes. Temperature over 20 °C or the increase of Riverstone® H will reduce the pot- and hardening – time.

Temperature below 20 °C or the reduction of Degament® H will raise the pot- and hardening – time.

Properties

When hardened:

		Riverstone® 1300			
	Measurement methods	unfilled	+flour-corn	+quarz 6 mm	unit
Basic density	DIN 53479	1,2	1,9	2,3	g/cm ³
Binding strength Compressive	DIN 1164	**	≥30	≥30	N/mm ²
Strength	DIN 1164	**	≥115	≥130	N/mm ²
Binding strength Compressive	DIN 53452	≥150	≥40	**	N/mm ²
Strength	DIN 53454	≥80	≥85	**	N/mm ²
Tensile strength	DIN 53455	≥60	≥15	≥10	N/mm ²
Elongation at break	DIN 53455	≈3	<1	<0,5	%
E modulus	DIN 53457	≥2800	≥12000	≥24000	N/mm ²
Shore hardness D Indentation	DIN 53505	≥80	≥80	≥80	
hardness	DIN 53456	≥130	≥210	≥210	N/mm ²
Thermal conductivity	DIN 52612/1	≈0,2	≈0,5	≈2	W/m-k
Shape retention when heated	DIN 52461/A	≥70	≥90	≥90	°C
linear thermal expansion coefficient	VDE 0304/1	8	2,5	1,7	10 ⁻⁵ /°C
Water absorption	DIN 53495/C	0,1	<0,1	<0,1	%
Dielectric strength	DIN 53482	10 ¹⁵ - 10 ¹⁶	10 ¹⁵ - 10 ¹⁶	10 ¹⁵ - 10 ¹⁶	Ω·cm
Surface resistance	DIN 53482	10 ¹³ - 10 ¹⁴	10 ¹³ - 10 ¹⁴	10 ¹³ - 10 ¹⁴	Ω
Polymerization Shrinkage, linear		≈ 1	0,2	0,1	%
Residual monomer Content		< 0,5	< 0,5	< 0,5	%

** not measured

State of delivery: Liquid in Containers, barrels, pails.

Storage: Only in original containers at a maximum of. 30 °C.

Safety -hints:

Riverstone® binding agent is easily inflammable liquid with MAK value. See our Safety – data sheet.