

Riverstone® VP 1365

Methyl methacrylate resin-binding agent for reaction resin concrete;
 cold-hardening, low-viscosity, paraffin-free

Application: Riverstone® 1365 is a cold-hardening, low-viscosity resin based on Acrylic resin (methyl methacrylate). It is used as binding agent for technical construction elements made of reactive-resin-concrete.

Properties: Riverstone® 1365 is a reactive paraffin – free methacrylate resin. After being mixed with a dry mixture made of fillers and hardener, it solidifies a reactive resin concrete with an excellent light, water and weathering resistance.

Riverstone® 1365 is low-viscosity which permits the production of high-filled mixtures, which is not possible with other comparable reactive resins. If the resin content drops, the compressive strength, the E - modulus increases, and the reactive resin concrete's flammability reduces.

Properties in

conditions of delivery:

	measurement	values	unit
	method		
	Density 20°C	0,96	g/cm ³
	Refractive index, n _D 20	1,42 – 1,43	
	Colour number	< 50	
APHA	Acid number	< 1	
	Viscosity	ca. 10	
mPa·s	Outflow time, ISO-beaker 3mm	20 – 28	sec
	Flash point	+ 10	°C
	Polymerization*	100g filler 0-1mm + 2g Riverstone® H +15g Riverstone® 1365	40 – 45 min
	Pot life	10kg filler 0-2mm 0.2kg Riverstone® H +1kg Riverstone® 1365	15 min

*Test in normal climate

Processing:

Riverstone® 1365 is processed to form reactive resin concrete by means of a dry mix consisting of 100 parts by weight filler and 2 parts by weight Riverstone® H. The amount of Riverstone® 1365 used depends for example on the flour grain content, maximum grain size and grain shape of the padding material.

Amount of Riverstone® 1365 used in

Screen Characteristic	parts by weight	% by weight	Kg/m ³ Riverstone® concrete
0-1 mm	10-13	8.9-11.3	212-264
0-2 mm	9-12	8.1-10.5	194-247
0-4 mm	7-11	6.4-9.8	154-230
0-8 mm	6-10	5.6-8.9	136-212
0-10 mm	5-9	4.7-8.1	114-194

At room temperature pot life is about 15 minutes and the hardening time about 40 minutes.

If temperatures are greater than 23 °C the amount of Riverstone® H increases and the pot life and hardening time shortens.

Temperatures less than 20 °C or a reduction in the amount of Riverstone® H prolong the pot life and hardening time.

At the processing of the Degament 1365 more methyl methacrylate evaporates in comparison with the Degament Types, which contains Paraffin.

After solidification it is necessarily that the construction elements harden further 1 hour in store.

**Properties
when hardened**

Riverstone® 1365

	Measurement method	Unfilled	+ Flour grain	+Quartz 0-6 mm	Unit
Basic Density	DIN 53479	1.2	2.0	2.4	g/cm ³
Bending strength N/mm ³	DIN 1164	**)	≥ 30	≥ 30	
Compressive Strength N/mm ³	DIN 1164	**)	≥ 115	≥ 130	
Bending strength N/mm ³	DIN 53452	150	40	**)	
Compressive Strength N/mm ³	DIN 53454	80	≥85	**)	
Tensile strength N/mm ³	DIN 53455	60	15	≥10	
Elongation at break	DIN 53455	3	< 1	<0.5	%
E modulus N/mm ³	DIN 53457	2800	12500	25000	
Shore hardness D	DIN 53505	80	80	80	
Indentation hardness N/mm ³	DIN 53456	120	210	210	
Thermal conductivity	DIN 52612/1	~0.2	~0.5	~2	W/m-K
Shape retention	DIN 53461/A	≥ 70	≥ 90	≥ 90	°C

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when heated

Linear thermal Expansion coefficient	VDE0304/1	8	2.4	1.5	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	µ cm
Surface resistance	DIN 53482	10 ⁻¹³ -10 ⁻¹⁴	10 ⁻¹³ -10 ⁻¹⁴	10 ⁻¹³ -10 ⁻¹⁴	Ω
Polymerisation		~1	0.13	0.08	%
Shrinkage, linear					
Residual monomer Content		< 0.5	< 1	< 2	%

**) not measured

Delivery-form: liquid in containers, barrels, pails

Storage: Only in original-skeins with maximum 30 °C.

Safety data: Riverstone® - binders is easily inflammable liquids with MAK - value.
See Safety data