

C³ Carbon Concrete Composite

Binder for high strength carbon concrete

Binder data with sand with a w/c ratio of 0.5 in accordance with DIN EN 196

Binder		BMK-D5-1* Deuna	C3-Nanodur Neuwied
Water demand	[%]	32	32
Initial setting time	[min]	> 150	> 150
Compressive strength	2d [MPa]	20	25
Compressive strength	28d [MPa]	55	65

Examples of mix design		BMK-D5-1* Deuna	C3-Nanodur Neuwied
<i>Meets the standards as</i>		<i>CEM VI/S-LL 52,5 N</i>	<i>CEM III/A 52,5 N</i>
Binder	[kg/m ³]	620	670
Granite chippings 2/5 mm	[kg/m ³]	840	420
Sand 0/2 mm	[kg/m ³]	530	670
Sand BCS 413	[kg/m ³]	250	270
Quartz flour M4	[kg/m ³]	-	100
Quartz flour M500	[kg/m ³]	-	70
PCE-superplasticizer	[kg/m ³]	16	16
Water	[kg/m ³]	145	195
Water/Cement ratio		0.23	0.29
Prism compressive strength**	28d [MPa]	120	130
3-point flexural bending strength**	28d [MPa]	12	15

** Prism 4 cm x 4 cm x 16 cm
Test specimen stored for 28 days under water at 20 °C

Important notice:

Prolonged exposure of the concrete surface to moisture combined with deficient ventilation may lead to a permanent blue discoloration caused by the blast furnace slag present in the binders. To counteract this tendency, for these conditions a suitable air permeable hydrophobization of optically sophisticated elements should be applied as early as possible. Afterwards, the elements have to be stored for at least 1 week under dry conditions.

This bulletin contains general information only. It cannot consider chemical and/or physical influences of substances unknown to us having any contact with our products at mixing or in any other way at work on the construction site. Hence the information is perhaps not suitable for the actual application. In this case individual tests considering the actual on-site conditions are necessary. The information in this bulletin cannot be seen as a quality guarantee.

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