PRODUCT DATA SHEET

BYPASS DUST

LATEST REVISION MARCH 2023

Bypass dust (formerly known as CKD, Cement Kiln Dust) is sold alone or mixed with cement for Multicem. Multicem is used to stabilize clay and other unstable soil masses. The proportion of bypass dust in Multicem is 25%, 50% and 75%. Bypass dust is fine dust from the clinker kiln, and consists mainly of burnt lime stone and other calcined minerals, and its content will vary. OBS! There may be more extensive variation than what is seen in the table.

Properties	Normal range of variation	Average values Bypass dust Brevik, Kjøpsvik, Slite*
Alkalies (% Na_2O $_{ekv.}$)	2 - 15	6
Free lime (% CaO)	14 - 40	30
Calsium oxide (% CaO $_{tot.}$)	30 - 60	53
Chloride (% Cl^-)	0 - 15	5
Magnesium oxide (% MgO)	1 - 3	2
Silicon oxide (% SiO_2)	4 - 20	13
Sulfate (% SO_3)	2 - 20	9
<24 um (%)	20 - 80	49
<30 um (%)	30 - 90	58
>64 um (%)	0 - 40	14
>90 um (%)	0 - 25	7
Specific weight (kg/dm^3)	2 - 3	3
Volume weight (kg/dm^3)	0,6 - 0,9	0,7

*Between 2018-2022

The clinker and raw meal dust in Bypass dust is almost completely calcined, almost all of the CO_2 that the dust originally contained has been driven off. This emission is attributed to the clinker and cement produced, since all quota-obligatory greenhouse gas emissions from the factory are attributed to these. Bypass dust must therefore only be charged with CO_2 emissions from transport and not production, since this is a residual material. This principle is used for industrial waste materials where CO_2-emissions from energy and steel production are linked to the products and not the residual material.

Heidelberg Materials

Heidelberg Materials Sement Norge AS
PO.Box143, Lilleaker, NO-0216 Oslo
Tlf. +47 22 87 84 00
www.sement.heidelbergmaterials.no