



Product Data Sheet:

R-E-D Fume Concrete – 102 DM

Densified, constant pH, amorphous light gray silicon dioxide powder, obtained by filtering the dusts extracted from the production of silicon metal in an electric arc furnace. R-E-D 102 DM is used to make high performance concrete. Silica fume is one of the more important advanced materials necessary in the effort to rebuild our nation's infrastructure. Silica fume delivers increased toughness and resistance to abrasion and corrosion, improving sustainability and life-cycle cost efficiencies.

Applications: Highway bridges, parking decks, marine structures and bridge deck overlays.

Packaging: Bulk super-sack, 25 lb. bags, other packaging options are available on request.

Storage: Dry storage. Avoid contact with moisture.

Safety: Product totally amorphous. Safety data sheet available on request.

Production Site: USA

Quality Control: Complies with the ISO 9001:2008 norm.

Environment: Complies with the ISO 14001:2000 norm.

Customer Service/Inside Sales:

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Physical and Chemical Characteristics

Limits

Analysis	Typical	Min	Max
SiO ₂ (%)	95.0	93.0	98.1
Free C (%)	1.50	0.60	3.50
Free Si (%)	0.12	0.05	0.20
Total CaO (%)	0.42	0.19	1.60
SO ₃ (%)	0.10	< 0.01**	0.70
Na ₂ O (%)	0.10	< 0.01**	0.50
K ₂ O(%)	0.38	0.25	1.10
H ₂ O(%)	0.30	0.10	1.20
Al ₂ O ₃ (%)	0.11	< 0.01**	0.50
Fe ₂ O ₃ (%)	0.12	< 0.01**	0.50
MgO(%)	0.29	0.05	0.60
pH	7.80	6.75	8.80
Loss on ignition (950 C During 1 hour) (%)	1.70	1.10	3.70
Specific Surface (BET) (M ² /g)	20.0	18.0	22.0
Bulk Density (lb/ft ³)	40	30	47
>45 μ (%)	2.20	0.50	8.00
Brightness L*	47	45	50

*% By weight of dry mass

** Lower limit Detection



It is not recommended that substitutions be made without batch trialing, this helps ensure mixes are consistent with intended use.