

# Strengthening the World's Foundations Through SCMs & Reinforcement Products

#### **Technical Data Sheet:**

## R-E-D Fume Oil & Gas - 104 OG





**R-E-D Fume Oil & Gas 104 OG** is used to make high performance concrete in the oil and gas fields. It provides better flow for easier application, decreases permeability by increasing the resistance to ion penetration and potential gas migration, provides greater enhancement in compressive and flexural strengths, durability, modulus of elasticity, pore structure, reduces viscosity and the set time of cement-based materials.

**Applications:** Can be used in grout as a hydraulic seal in the well bore, to fix leak repairs, splits and the closing of depleted zones.

<u>Packaging:</u> Bulk super-sacks, other packaging options are available upon request.

Storage: Dry storage. Avoid contact with moisture.

**<u>Safety:</u>** Product totally amorphous. Safety data sheet available upon request.

**Quality Control:** Complies with ISO 9001:2008 norm., ASTM C1240 and AASHTO M 307.

**Environmental:** Complies with ISO 14001:2000 norm.



## **Physical and Chemical Characteristics**

	Limits		
ANALYSIS	TYPICAL	MIN	MAX
SiO <sub>2</sub> (%)	95.00	93.00	98.10
Free C (%)	1.50	0.60	4.00
Total CaO (%)	0.42	0.19	1.60
SO <sub>3</sub> (%)	0.10	<0.01 <sup>2</sup>	0.70
Na <sub>2</sub> O (%)	0.10	<0.01 <sup>2</sup>	0.50
K <sub>2</sub> O (%)	0.38	0.25	1.10
H <sub>2</sub> O (%)	0.30	0.10	1.20
Al <sub>2</sub> O <sub>3</sub> (%)	0.11	<0.01 <sup>2</sup>	0.50
Fe <sub>2</sub> O <sub>3</sub> (%)	0.12	<0.01 <sup>2</sup>	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	4.30
Specific Surface (BET) (M²/g)	20.0	18.0	22.0
Bulk Density (lb/ft³)	28.9	25.0	34.0
>45 μ (%)	2.20	0.50	8.00
Brightness L <sup>1</sup>	47	45	50

<sup>1 %</sup> by weight of dry mass

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Users must ensure that this material is suitable for their specific application despite reasonable care taken in its preparation. It is not recommended that substitutions be made without batch trialing, as this helps ensure that mixes are consistent with their intended use.

<sup>&</sup>lt;sup>2</sup> Lower limit detection