Sofnolime[®] RG 3mm

Non indicating. Size range 3mm extrudates

A unique material developed specifically for the removal of carbon dioxide, hydrogen sulfide, and other acidic contaminant from hydrocarbon process streams.



Applications

Sofnolime[®] RG extrudates are used for the removal of carbon dioxide, hydrogen sulfide and other acidic contaminants from hydrocarbon process streams. It is intended for use in 'wet' and mixed phase gas/hydrocarbon streams including ethylene, propylene and LPG applications. It will also remove carbonyl sulfide (COS) and low molecular weight mercaptans. Please contact your local representative for an assessment of your application.

Properties

Total Alkali Metal Hydroxide (as NaOH) No color indicator 2.0 – 3.5% (nominal range)

Particle size distribution

Standard mesh size (US sieve)	
Retained on 0.265"	0%
Retained on 4 mesh	10.0% Max
Retained on 8 mesh	Balance
Retained on 40 mesh	10.0% Max
Passing 40 mesh	1.0% Max
H ₂ S Activity g/kg	>10.0 Min
5000ppm H ₂ S in air at 20°C and 50% RH passed downwards through hed of 30mm diameter and 50mm	

downwards through bed of 30mm diameter and 50mm height at flow rate of 1.0 liters per min.

Availability

Sofnolime[®] RG extrudates are available in 750 kg/1650lb polypropylene bags and in 135 kg/298lb steel drums with polypropylene liners.

How it works

Sofnolime[®] removes carbon dioxide (and other acidic contaminants) from gas steams via an exothermic, water facilitated, base catalyzed chemical reaction. The Sofnolime[®] contains a carefully controlled level of water which aids the reaction. Water is also formed as a byproduct of the reaction. The reaction proceeds in 3 stages:

(i) Reaction at the aqueous layer $CO_{2 \text{ (gas)}} + H_2O \longrightarrow CO_{2 \text{ (in solution)}}$

(ii) Bicarbonate formation CO_{2 (aqua)} + NaOH → NaHCO₃

(iii) Decomposition/regeneration of NaOH catalyst NaHCO₃ + Ca(OH)₂ \longrightarrow CaCO₃ + NaOH + H₂O

The overall balanced equation being:

H₂O / NaOH

CO_{2 (g)} + Ca(OH)_{2 (s)} - CaCO_{3 (s)} + H₂O (I)

Quality

Molecular Products Inc.'s aim is to manufacture chemical products which completely satisfy the needs of our customers. All products are rigorously tested to ensure conformance to the specification. All products are manufactured under ISO 13485 Quality Management System (QMS). A summary of test methods is available upon request.

Molecular Products Inc.

633 CTC Blvd. Ste. 200 Louisville, CO 80027 **1** (303) 666 4400

E salesusa@molprod.com w www.molecularproducts.com