Sofnolime® 1025 Instrument Grade

White to violet indicating. Size range 1.0-2.5mm granules

A high performance absorbent with a white to violet colour change when carbon dioxide is absorbed



Applications

Sofnolime[®] 1025 is a high performance carbon dioxide absorbent, specifically for use in a laboratory environment when a colour change is required.

The product will also absorb H_2S and SO_2 , which also initiates the colour change.

Properties

Water Content 16 - 20%

Total Alkali Metal 2.0 - 3.5% (nominal range)

Hydroxide (as NaOH)

Particle size

Retained on 2.80mm screenI.0% MaxRetained on 2.00mm screen30.0% MaxRetained on 1.40mm screenBalanceRetained on 0.60mm screen20.0% MaxPassing 0.60mm screenI.0% MaxHardness80.0% MinActivity (see Notes)I9.0% Min

Colour Indicator

Sofnolime® contains a colour indicator which changes the granules from white to violet when carbon dioxide is absorbed. This colour change is not permanent and will slowly revert back to white..

Availability

Sofnolime[®] 1025 Instrument Grade is available in 2×4.5 kg twin pack and 20×1 kg securitainer.

Notes

Activity is determined by passing air containing 4.76% carbon dioxide at a relative humidity of 90% at 20°C through a sample of Sofnolime® with a total residence time of two seconds and measuring the time taken for the outlet carbon dioxide level to exceed 0.02%.

How it works

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

(i) Reaction at aqueous layer

 $CO_{2(gas)} + H_2O \longrightarrow CO_{2 (in solution)}$

(ii) Bicarbonate formation

CO_{2(aqua)} + NaOH NaHCO₃

(iii) Decomposition/regeneration of NaOH catalyst

 $NaHCO_3 + Ca(OH)_2$ CaCO₃ + NaOH + H₂O

The overall balanced equation being :-

H₂O / NaOH

 $CO_{2(g)} + Ca(OH)_{2(s)}$ $CaCO_{3(s)} + H_2O_{(l)}$



Quality

Molecular Products Ltd's aim is to manufacture chemical products which satisfy completely the needs of our customers. All products are rigorously tested to ensure conformance to the specification. Our activities comply to the requirements of ISO 9001 and 13485.

Molecular Products Limited

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