

TECHNICAL DATA: Intersorb 8 to 12 mesh Indicating and Non-indicating soda lime.

Product names: Intersorb 812 NI (non-indicating)

Intersorb 812 WV (indicating)

Intersorb 812 is comprised of 2 mm cylindrical granules and has been produced to achieve the maximum carbon dioxide absorption and optimum physical properties.

Chemical composition: Intersurgical tests.

	Intersorb 812 NI	Intersorb 812 WV
Calcium Hydroxide	97 %	97 %
Sodium Hydroxide	3 %	3 %
Ethyl Violet	NIL	0.03 %

Note, these figures represent the dry constituents. The product will additionally contains 14 % to 18 % water.

Physical properties: Intersurgical tests.

	Intersorb 812 NI and WV Typical data	Specification
Particle size		
Over 2.80 mm	0.6 %	1 % max
2.00 to 2.80 mm	25%	30 % max
1.40 to 2.00 mm	Balance	Balance
0.600 to 1.40 mm	6 %	20 % max
Under 0.600 mm	0.5 %	1 % max
Moisture content	16 %	14 % to 20 %
Hardness	87 %	80 % minimum
(% Retained on 1.4mm screen)		
Resistance to flow *	1.4 mbar unused	
	1.6 mbar used	

^{*40} L/min, absorber10 cm diameter.





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^{12.5} cm height, volume 1 litre.



Carbon Dioxide absorption: Intersurgical tests.

	Intersorb 812 NI and WV Typical data	Specification
Time to 0.5 % CO ₂ ** breakthrough (minutes)	100 minutes	80 minimum
CO ₂ capacity L/kg	150 L/kg	120 L/kg minimum

^{**105} ml absorbent in 30 mm diameter tube.

Challenge gas: 3.0 L/min air containing 5 % CO₂.

Humidity 100 % Temperature 20°C

Chemical reaction for carbon dioxide removal.

Intersorb 812 removes carbon dioxide (and other acidic contaminants) from gas streams via an exothermic, water facilitated, base catalysed chemical reaction. Intersorb 812 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) $CO_2 + H_2O \rightarrow H_2CO_3$
- (ii) $H_2CO_3 + 2NaOH \rightarrow Na_2CO_3 + 2H_2O$
- (iii) $Na_2CO_3 + Ca(OH)_2 \rightarrow CaCO_3 + 2NaOH$

Quality

All products are rigorously tested to ensure conformance to specification. Our production and quality procedures comply to the requirements of ISO9001.

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