

SofnoDive[®] 797

Sofnolime[®] for Leisure Diving



SofnoDive[®] 797 is a disposable absorbent unit, optimised for the removal of carbon dioxide in rebreather apparatus.

Applications

SofnoDive[®] 797 absorbs carbon dioxide ensuring a breathable atmosphere is maintained. It is optimised for the removal of carbon dioxide from recirculated air/nitrox/heliox in rebreathers and saturation dive systems. It is suitable for leisure diving rebreathers.

Properties

- High intrinsic carbon dioxide capacity
- Irregular shaped/sized granules for optimum packing
- High attrition resistance (low dust formation) for good 'taste' characteristics
- Reproducible performance
- No contact with absorbent

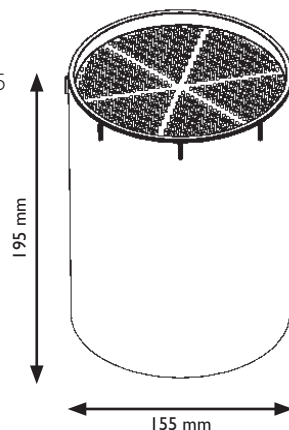
Description

SofnoDive[®] 797 is a single use, pre-packed carbon dioxide absorber intended to be used as part of a closed circuit diving rebreather system. The units are simple to use and a cost effective alternative to loose fill absorber units. SofnoDive[®] 797 eliminates the need for the user to come into contact with the absorber material (Sofnolime[®]) and provides a guaranteed performance.

Physical Size/Capacity

Each unit is filled with Sofnolime[®] 797 dive grade soda lime

| | |
|--|-------|
| Maximum diameter (mm) | 154.5 |
| Diameter of seal face (mm) | 142 |
| Length (mm) | 195 |
| Weight (approx.kg) | 2.8 |
| CO ₂ capacity (litre CO ₂ per unit - minimum) (40 l/min airflow to 1% CO ₂ breakthrough) | 390 |
| Resistance to flow (at 90 l/min - mm water gauge -max) | 34 |
| Resistance to flow (at 40 l/min - mm water gauge-typical) | 12 |



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Performance - SofnoDive[®] 797 (soda lime)

| Sofnolime [®] | 797 Grade, Triangular Shape | | |
|--------------------------------------|-----------------------------|------------------|-----------------|
| | Particle size | Specification | Typical Results |
| Range | | 1.0-2.5mm (1025) | |
| | >2.80mm | 1%Max | Zero |
| | 2.00mm-2.80mm | 30.0% Max. | 9% |
| | 1.40mm-2.00mm | Balance | 83% |
| | 0.60mm-1.40mm | 20.0% Max | 7% |
| | <0.60mm | 1.0% Max | 0.2% |
| Moisture | | 16-20% | 17% |
| Hardness | | >80% | >90% |
| Intrinsic CO ₂ Absorption | | | ≥150 litres/kg |

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



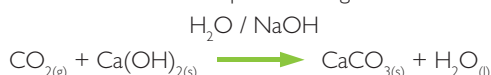
(ii) Bicarbonate formation



(iii) Decomposition/regeneration of NaOH catalyst



The overall balanced equation being :-



Additional information

Transport

The cartridges are classified under international rules as non hazardous for transport by road, rail, sea and air but any local carrier rules should be checked. The soda lime cartridge contents is classified as a irritant under European supply legislation but is contained in the cartridge to prevent contact with the user.

Storage

- Shelf life is two years from the date of manufacture.
- Keep out of direct sunlight.
- Keep dry.
- Do not drop. (If dropped inspect for damage before use).
- Store between 0° and 35°C (do not freeze).

Quality

Molecular Product's aim is to manufacture chemical products which completely satisfy the needs of our customers. Our activities comply to the requirements of ISO 9001:2008.

Disposal and the Environment

Please dispose of responsibly complying with local legislation.

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