



SCILABUB CO2 STORAGE CHEST TECHNICAL SPECIFICATION

Scilabub solid CO2 storage chests are made of polyester/glass fibre to minimise thermal conductivity between the inner chamber and the outer walls. At these low temperatures condensation of the atmospheric water vapour occurs and there is no risk of rusting as may be the case with steel chests. The walls are self-coloured white, thus any accidental surface scratches remain hidden. The substantial void between inner and outer walls is filled with thermal insulant to reduce heat transfer and the lid has a protrusion which fits into the top of the storage space. Double silicone rubber seals are compressed by the catches which secure the lid when closed. Easily opened on its rear mounted hinges, the lid has a stay to hold it in the open position. Four castors are fitted so that the chest is easily moved from one location to another. Pressing a lever, with the foot, on each of the two front castors locks them to immobilise the cabinet in any desired location. Lifting the levers frees the castors again.

The weight of material which the chest will hold and its typical storage life depend upon a number of factors. The dimensions both of blocks and pellets differ between manufacturers. Storage is also affected by the frequency of opening the chest. The greater the surface area of pellets gives shorter life than blocks. For more precise estimates it is necessary to check solid carbon dioxide manufacturers' specifications. Assuming that despatch amounts of material are around 10 -11kg per block or bag of pellets, the chest should hold two blocks (plus fragments remaining from earlier delivery) or two bags of pellets.

In a test where a pre-cooled chest was filled with blocks of solid carbon dioxide and was left unopened, some material still remained after two weeks. In practice, pellets are usually preferred for convenience. Reports suggest that two bags of pellets will last almost a week if usage is light.

It is possible to use the chest also as a storage container for thermally unstable materials (e.g. monomers and biological materials) to delay degradation. Then a quantity of CO2 is used as a coolant. Similarly the chest is suitable for low temperature environmental testing, assuring a steady temperature without dependence on power supplies.

W (ext.) 67cm (int.) 38cm D (ext.) 47cm (int.) 19cm H (ext.) 80cm (int.) 44cm Weight @ 20kg