



DOW FILMTEC™ Membranes Handling, Preservation and Storage

General

DOW FILMTEC™ membrane elements should be handled in such a way that biogrowth and change in membrane performance during long-term storage, shipping or system shutdowns are prevented. The elements should preferably be stored and shipped outside the pressure vessels and loaded into the pressure vessels just prior to start-up.

Follow accepted safety practices when using biocide solutions as membrane preservations. Always wear eye protection. Consult the relevant Material Safety Data Sheets as supplied by the manufacturer of the chemicals.

Storage and Shipping of DOW FILMTEC™ Elements

DOW FILMTEC™ elements are tested and shipped either in dry condition or as wet and preserved elements. Wet elements are preserved in a standard storage solution containing a buffered 1 wt % food-grade sodium metabisulfite (SMBS). The storage solution prevents biological growth during storage and shipping of elements. For preservative Material Safety Data Sheets please visit the Answer Center at www.dowwaterandprocess.com.

Wet elements are bagged in a durable, oxygen-barrier composite plastic bag and preservative solution is delivered prior to vacuum sealing. Precise preservative volume and high bag integrity help ensure a stable preservative environment during transportation and storage.

Dry elements are bagged and sealed in a robust plastic bag. They do not require any preservation solution, but they should be kept in their sealed bag until they are used.

Please follow these guidelines for storage of DOW FILMTEC™ elements:

- Store inside a cool building or warehouse and not in direct sunlight.
- Temperature limits: 22°F to 95°F (-4°C to +35°C).
 - New dry elements will not be affected by temperatures below 22°F (-4°C).
 - Elements stored in 1% SMBS will freeze below -4°C, but the membrane will not be damaged, provided the elements are thawed before loading and use.
- Keep new elements in their original packaging.
- Preserved elements should be visually inspected for biological growth 12 months after shipment and thereafter every three months. If the preservation solution appears to be not clear the element should be removed from the bag, soaked in a fresh preservation solution and repacked. Refer to bulletin #609-02104 for guidelines. In case no equipment for re-preservation (fresh solution, clean environment, bag sealing device) is available, the elements can be left in their original packaging for up to 18 months. When the elements are then loaded into the pressure vessels, they should be cleaned with an alkaline cleaner before the plant is started up.

DOW FILMTEC™ Membranes
For more information about DOW
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Warning: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

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