



# Tychem F<sup>®</sup> Breathing Hose Cover (HC-TF)

Disposable Cover for High Resistance to Aggressive Chemicals



## User Instructions

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## Tychem F<sup>®</sup> Breathing Hose Cover

### Function and Use

The Tychem F<sup>®</sup> Breathing Hose Cover (HC-TF) is a disposable cover used on the SE400<sup>®</sup> family of respirators. It provides an additional layer of protection for the Breathing Hose. It is intended for use in environments where aggressive chemicals may be encountered. The Breathing Hose Cover is made from highly chemical resistant DuPont Tychem F<sup>®</sup> material.

**WARNING!** Tychem F<sup>®</sup> material is not flame resistant and should not be used around heat, flame, sparks or in potentially flammable or explosive environments.

**WARNING!** Tychem F<sup>®</sup> materials cause electrostatic discharge under certain conditions. Do not use in explosive atmospheres or in atmospheres containing hydrogen or enriched oxygen. For more information contact SEA.

**NOTE:** Refer to the product approval documentation for compatibility of this product.

**NOTE:** Refer to the SE400<sup>®</sup> User Manual for proper use of these respirators.

### Installation

For maximum protection, the Tychem F<sup>®</sup> Breathing Hose Cover must be fitted correctly.

1. With the mask detached from the breathing hose (refer to the SE400<sup>®</sup> User Manual for detachment instructions) remove the Tychem F<sup>®</sup> Breathing Hose Cover from its packaging and insert the “mask end” of the breathing hose into the cover (NB: cover ends are identical) pushing the hose through until the hose is fully covered (see Figure 1).
2. Position the outer edge of the hose cover approx. 1cm below the start of the elbow at the “fan unit end” of the hose (see Figure 1) and carefully remove the release liner from the adhesive tape on the inside edge. (NB: For pressurisation hoses such as the H20-P, position the outer edge of the hose cover half way between the screw holes in the pressurisation port, to ensure the port is not obscured).
3. Grip the cover just below the location of the adhesive tape to produce an evenly pleated edge. Slide your hand up over the pleats squeezing tightly to fasten the adhesive tape securely (see Figure 2).
4. Carefully remove the release paper backing from the hose cover band (see figure 3) and wrap the strip evenly around the end of the hose cover (or pressurisation port) pulling firmly as you go (see Figure 4). Ensure that there are no gaps or pleats in the strip itself. If any gaps or pleats are present ensure that these areas are firmly pressed down to prevent possible leakage of contaminant onto the breathing hose.

5. To seal the “mask end” of the breathing hose repeat Steps 2 – 4 with the exception of Step 2, whereby the outer edge of the hose cover should be positioned approx. 1.5cm below the end of the hose, i.e. just below the mask end fitting (see Figures 5-8).
6. After fitting the hose cover, re-attach the breathing hose to the mask (refer to the SE400<sup>®</sup> User Manual for attachment instructions).

## Removal & Replacement

The HC-TF Breathing Hose Cover is disposable and **MUST NOT be reused** after exposure to dangerous contaminants. If the hose cover becomes damaged in any way it should be replaced.

Removal of the hose cover from the breathing hose is the reverse of the installation described above (see the “Decontamination” section below for further details). Ensure that all traces of adhesive tape have been removed from the hose ends and that they are clean and dry before applying a new cover. If traces of tape are present, roll them off with the balls of the fingers or use sticky tape or similar to remove. **DO NOT use solvent as this will damage the plastic parts.**

## Precautions

To prevent possible leakage of contaminant through the hose cover, avoid chaffing on rough surfaces or damage caused by trapping in the workings of machinery or appliances.

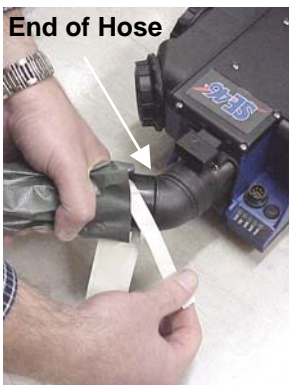


Fig. 1



Fig. 2

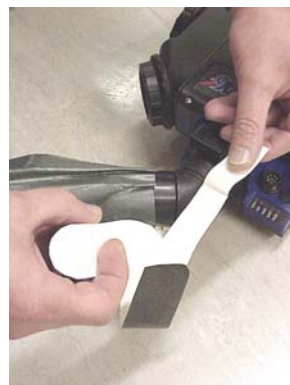


Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

## Tychem F<sup>®</sup> Material Permeation Data

Chemical Warfare Agents	
Compound	Tychem F <sup>®</sup> Material Breakthrough Time (min) <sup>1</sup>
Mustard (HD) Liquid	>720 <sup>3</sup>
Lewisite (L) Liquid	360 <sup>3</sup>
Tabun (GA) Liquid	>720 <sup>4</sup>
Sarin (GB) Liquid	>720 <sup>4</sup>
Soman (GB) Liquid	>720 <sup>4</sup>
VX Liquid	>720 <sup>4</sup>

Industrial Chemicals	
Compound	Tychem F <sup>®</sup> Material Breakthrough Time (min) <sup>1</sup>
Acetone	>480
Ammonia	79
Carbon Disulfide	>480
Chlorine	>480
Dichloromethane	5
Diethyl Amine	>480
Ethyl Acetate	>480
Ethylene Glycol	>480
Ethylene Oxide	65
Formaldehyde Liquid (Formalin Solution)	>480
Hexane	>480
Hydrochloric Acid (37%)	>480
Hydrogen Chloride	>480
Hydrogen Fluoride	Immediate
Methanol	77
Methyl Chloride	>480
Monoethanolamine	>480
NaOH Concentrate	>480
Fuming Nitric Acid	14
Sulphur Dioxide	38
Sulphuric Acid (93%)	>480
Tetrachloroethylene	>480
Toluene	>480
Xylene	>480

<sup>1</sup> Tested per ASTM F739, breakthrough criterion 0,1µg/min/cm<sup>2</sup>, 25°C, test duration 8 hour.

<sup>3</sup> MIL-STD-282, Method T-209

<sup>4</sup> MIL-STD-282, Method T-208

## **Decontamination**

Where decontamination of the respirator is necessary, follow a decontamination procedure appropriate to the contaminant(s) encountered. The user should continue to wear the respirator during decontamination. In such conditions the Breathing Hose Cover should be decontaminated before removal.

First undo the strips on either end of the hose cover. Open the ends of the hose cover and cut the hose cover length-ways with a pair of scissors. The hose cover can now be removed and discarded.

***CAUTION: Use a blunt-ended pair of scissors taking care not to puncture the breathing hose.***

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