

# Data Sheet: Tychem CBRN suit



## Fully encapsulated military-grade CBRN suit

### Description

Protective encapsulated suit, specially made for use with SE400 positive pressure demand respirator. Disposable, single-use suit. The SE400 can be fitted with an optional pressurisation hose which maintains a slight positive pressure inside the suit.

### Usage

Used to protect the entire body while wearing the SE400 respirator. Protects against particles and gases. Protects against chemical and biological materials including CBRN warfare agents.

### Material

Military-grade Tychem F material

### Weight of material

105 g/m<sup>2</sup>

### Fabric characteristics

Effect	Resistance
Burst	227 kPa
Puncture	30.9 N
Flex cracking	2500 cycles
Air permeability	Impermeable
Water vapour permeability	Impermeable
High temp	Seams open at +98°C
Low temp	Flexibility down to -70°C

### Suit construction

- Seams: Lap welded for extra strength
- Visor seal: Fits tightly around the rim of the full face mask
- SE400 hose: A hose sleeve fits around the entire length of the hose
- SE400 filters: Sealed off from the interior of the suit by two threaded sealing rings
- Gloves: Chemically impermeable gloves are fastened to the rigid sleeve rings with an airtight seal. The gloves are designed to be worn inside regular working gloves or rubber, leather or other materials. NOTE: The supplied gloves are impermeable and impregnable, but are not designed for mechanical wear and tear. Heavy-duty outer gloves of butyl rubber, leather or similar must be worn over the inner gloves.

— Booties: Booties are permanently welded to the suit legs. The booties slip easily into regular outer heavy-duty boots or shoes. A special skirt covers the bootleg for further protection

— SE400: The SE400 fan unit is worn on a balanced, convenient back-pack inside the suit

**Chemical breakthrough (in accordance with ASTM F739-1991)**

Compound	B'through time (min)
Acetone	>480
Ammonia	79
Carb. disulph.	>480
Chlorine	>480
Dichl. meth.	5
Diethylam.	>480
Ethyl acet.	>480
Ethyl. glycol	>480
Ethyl. oxide	65
Hexane	>480
Hydr. chl.	>480
Methanol	77
Meth. chl.	>480
Monoeth. amine	>480
NaOH conc.	>480
Sulph. acid	>480
Tetrachl. ethyl.	>480
Toluene	>480
Xylene	>480
Mustard gas*	>480 @ +37°C
Lewisite/Must. 2:1*	>480 @ +37°C
VX*	>480 @ +37°C

\*) Tested by TNO, The Netherlands

**Total inward leakage**

One unique feature of the S.E.A. PVC suit is that it can be used with a pressurisation hose which turns the suit into a positive pressure suit. Total inward leakage into the suit if using pressurisation hose is typically 0.1%.