

Chemical protection
from jet sprays and/or
saturation sprays of
a wide range of Acid,
Solvent and Organic
Chemicals

MICROCHEM[®]
4000



Type 2



Type 3



Type 4


MICROGARD[®]

Limited life and single use
high performance chemical protective
garments and accessories

Microchem® 4000 is a True 3 and 4 limited life protective overall that combines an exceptionally lightweight fabric with a high barrier to a range of hazardous chemicals. In addition, the unique design features ensure excellent protection against life threatening liquid chemicals is provided.

Protection Level

- Microgard®/Microchem® 4000 is suitable for protection against hazardous liquid chemicals and has been tested to CE Type 3 (pressure spray) and Type 4 (saturation spray)

Properties

- The unique 5-layer fabric combines a lightweight textile feel with an exceptional barrier against hazardous liquid chemicals.
- Over 100 chemicals have been tested against the fabric to the EN 374-3 permeation test.
- Design features such as quality ankle and wrist elastics, storm cuffing and unique double zip flap ensure a garment which is both usable and offers excellent protection.

Design

- Microgard®/Microchem® 4000 uses the welded version of our optimum pattern, designed for maximum wearability, comfort and durability. The design includes the unique X-seam hood for a more comfortable fit around the face.
- Gauntlet length storm cuffs enable a secure seal with chemical gloves at the wrists. The inner cuffs feature comfortable knitted cuffing.

MICROCHEM® APOLLO// Fully Encapsulated Chemical Suit to EN340 CAT III

Developed in the UK with the Fire & Rescue Services



The Microchem® Apollo is designed for use in conjunction with self-contained breathing apparatus worn on the interior of the suit. It features a fully sealed hood with visor, attached lightweight chemical isolation gloves, attached boots with boot overflap and an optional rear-mounted breathing apparatus (BA) pouch with rear entry double zip.

MICROGARD® SATURN// Fully Encapsulated Airline Chemical Suit to EN340 CAT III Type 2 Non gas tight positive pressure suit



The Microchem Type 2 suit is designed for use in conjunction with an Airline breathing apparatus with either a half mask or full face mask. This should include a face piece with breathing hose, a belt mounted flow control or pressure reducer valve, (e.g. Sundrom SR90 Airline Respirator with Filter back up) a compressed air supply hose and an industrial compressed air filtering unit. When used as

instructed the suit allows compressed cool air to circulate within the suit and helps prevent the user from suffering early heat exhaustion.

Fully Encapsulated Chemical Suit to EN340 Cat III Type 2 (positive pressure) and Type 3 jet spray and Type 4 saturation spray protection

Microgard®4000 Fabric Properties

Blocking	ISO 5978	No blocking
Flexing	ISO 7854	>1,000,000
Bursting	ISO 2960	379.2KPa
Distention	ISO 2960	17.5mm
Tear	ISO 9073	142.4N (md) 105.4N (cd)
Puncture	prEN368	16N
Fire retardancy	ISO 6941	No severance
	>50cm thread	
Surface Resitivity	EN 1149.1	Conforms to anti-static requirements

Chemical barrier to EN369 Permeation Test

Sulphuric Acid (95%)	>480m
Hydrochloric Acid	>480m
Methanol	>480m
Dimethylformamide	>480m

For further test results please see separate list.

Finished Garment Tests

Seam Strength	ISO 5082	283N (class 4)
Spray Test	EN 1511	Pass
Jet Test	EN 1512	Pass

All chemical tests and breakthrough times quoted relate to laboratory tests on fabrics only. Seams and closures may have lower breakthrough times - particularly when worn or damaged. The final determination of suitability for application is the user's responsibility.

Microchem® 4000 vs PVC

Chemical Breakthrough Times: BS EN 466-1 / BS EN 369

Chemical Name	Concentration %	Breakthrough times for PVC	Breakthrough times for Microchem® 4000
Sodium Hydroxide Solution	48	> 480 mins	> 480 mins
(Glacial) Acetic Acid	99.8	35 mins	> 480 mins
Sulphuric Acid	95-98	25 mins	> 480 mins
Methanol		14 mins	> 480 mins
Cyclohexanone		13 mins	> 480 mins
Ammonia solution	35	11 mins	20 mins

Non-Classified Mediums to BS EN 466-1

Chemical Name	Breakthrough times for PVC	Breakthrough times for Microchem® 4000
n-Hexane	6 mins	> 480 mins
Unleaded Petrol	5 mins	> 480 mins
Toluene	4 mins	> 480 mins
Acetone	3 mins	> 480 mins
Chloroform	2 mins	11 mins

NB. Based on general industry data no claims are made about any specific PVC coveralls. Individual PVC manufacturers may be able to provide their own results. We suggest you check with your supplier for specific results.

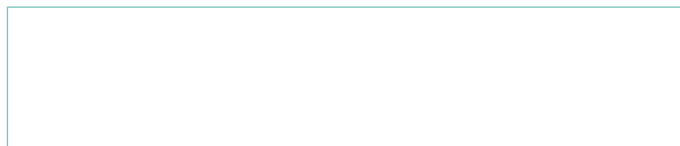
PLEASE NOTE: ALL FABRICS HAVE DIFFERENT PERMEATION PERFORMANCE. PLEASE CHECK FOR PERMEATION DATA THAT MEETS YOUR SPECIFIC NEEDS.

All Microgard®Apollo/4000 garments are generously sized to allow freedom of movement. The choice of the correct size is important in maximising the comfort and life of a garment. Please see the size chart shown on the Microgard®Apollo/4000 user guidance notes.

All information provided is for guidance only. The manufacturer has no knowledge of the full details of individual applications, so the final determination of the suitability of Microgard®Apollo/4000 for any application is the user's responsibility.

Microgard®Apollo/4000 is designed and manufactured under an ISO 9001 quality control approved system.

Available from:



Exclusive Microgard® agents for Australia and New Zealand Fabri-Cell International