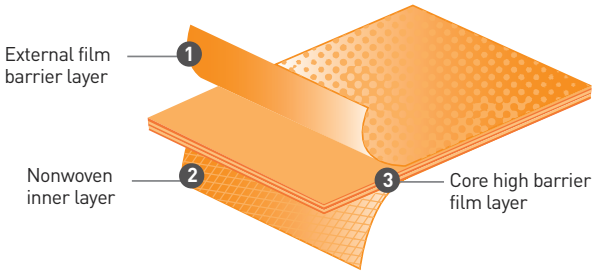
MICROCHEM® 5000 APOLLO

Developed for fire and rescue crews around the world

MICROCHEM® 5000 APOLLO is a fully encapsulated liquid tight chemical suit designed for use in conjunction with self contained breathing apparatus (SCBA)

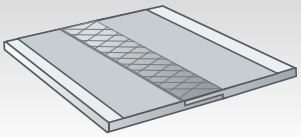
This highly visible innovative material is strong, durable and suitable for workers in extremely hazardous areas, including HAZMAT response teams.



Protection Levels & Additional Properties

Ultrasonically Welded & Taped Seams

A feature throughout the MICROCHEM® 5000 range, this seam technology is our highest barrier to liquids and particulates.

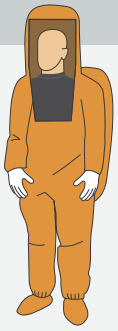


Applications

- Chemicals
- Oil and petrochemicals
- Pharmaceutical
- Industrial and tank cleaning
- Emergency Services (HAZMAT, CBRN)
- May also be suitable for Level B HAZMAT response in accordance with US Environmental Protection Agency (EPA) & NFPA guidelines)

Contact the Microgard tech team for full details or email technical@microgard.com

Model **186**



Suit Features

- Side entry Double Zip flap
- Expanded back for internal wearing of self-contained breathing apparatus
- Rear positioned exhalation valves
- Attached socks with static dissipitive sole & leg over flap
- Attached Ansell Barrier™ gloves with sleeve over flap.
- Semi-rigid multi-layer visor
- Ultrasonically welded and taped seams
- Bat-wing design enables air gauge checking within the suit

Attached Ansell Barrier™ gloves with sleeve over flap.

Semi-rigid multi-layer visor

Sizes: M-3XL
Colour: Orange

MICROGARD Limited
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MICROGARD®
High Performance Protection in Comfort

MICROCHEM® **5000** Technical Data

MICROCHEM® 5000 is extensively tested in accordance with statutory requirements, including physical performance attributes and barrier to hazardous substances. The following tables outline the results obtained in independent laboratories according to European test methods.

Test Method	Result	EN Class (EN 14325)
EN 530 Abrasion	>2000 Cycles	6 of 6
EN ISO 7854 Flex Cracking	>5000 Cycles	3 of 6
EN ISO 9073-4 Tear Resistance (Machine Direction)	>60N	4 of 6
EN ISO 9073-4 Tear Resistance (Cross Direction)	>60N	
EN ISO 13934-1 Tensile Strength (Machine Direction)	>100N	3 of 6
EN ISO 13934-1 Tensile Strength (Cross Direction)	>100N	
EN 863 Puncture Resistance	>10N	2 of 6
EN ISO 13938-1 Burst Resistance	>80kPa	2 of 6
EN 13274-4 Resistance to ignition	Pass	-
EN 13274-4 Resistance to Flame	Pass	2 of 3
EN 1149-5: 2006 Electrostatic Properties (Surface Resistance)	$<2.5 \times 10^9$	-
ISO: 13935-2 Seam Strength	241.8N	4 of 6

MICROCHEM® 5000 has been tested against numerous chemicals.

EN ISO 6529 Chemical Permeation Test Results			
Chemical Name	**CAS Number**	**BT at 1.0µg/cm²/min**	**EN Class (EN 14325)**
Acetone	67-64-1	›480	6 of 6
Acetonitrile	75-05-8	›480	6 of 6
Ammonia Gas, 1 atmos.	7664-41-7	›480	6 of 6
Carbon Disulphide	75-15-0	›480	6 of 6
Chlorine (›99.8wt%) Gas, 1 atmos.	7782-50-5	›480	6 of 6
Diethylamine	109-89-7	›480	6 of 6
Ethyl Acetate	141-78-6	›480	6 of 6
Hexane-n (99.8 wt%)	110-54-3	›480	6 of 6
Hydrogen Chloride (› 99.0 wt%) Gas, 1 atmos	7647-01-0	›480	6 of 6
Methanol (› 99.5 wt%)	67-56-1	›480	6 of 6
Sodium Hydroxide (aq, 50wt%)	1310-73-2	›480	6 of 6
Sulphuric Acid (96 wt%)	7664-93-9	›480	6 of 6
Tetrahydrofuran	109-99-9	›480	6 of 6
Toluene (99.99 wt%)	108-88-3	›480	6 of 6

TNO Protocols – Resistance to permeation of Chemical Warfare Agents			
Chemical	**Detection Limit**	**Temperature (°C)**	**Breakthrough Time (hh:mm)**
Mustard (HD)	Approx. 0.5 µg/cm²	37	›17:40
Lewisite (L)	Approx. 0.5 µg/cm²	37	›06:30 ‹09:30
Sarin (GB)	Approx. 0.05 µg/cm²	37	›24:00
VX	Approx. 0.05 µg/cm²	37	›24:00

MICROCHEM® 5000 when tested in accordance with EN 14126:2003 demonstrates an excellent barrier to infective agents.

EN14126 Barrier to Infective Agents	**Result**	**EN Class**
ISO 16603 Resistance to penetration by blood/fluids under pressure	Pass to 20kPa	Class 6 of 6
ISO 16604 Resistance to penetration by blood borne pathogens	Pass to 20kPa	Class 6 of 6
EN ISO 22610 Resistance to wet bacterial penetration (mechanical contact)	No penetration (up to 75 mins)	Class 6 of 6
ISO/DIS 22611 Resistance to biologically contaminated aerosols	No penetration	Class 3 of 3
ISO 22612 Resistance to dry microbial penetration	No penetration	Class 3 of 3

MICROCHEM® 5000 products have been extensively tested according to European and International requirements, including ASTM, for both physical and barrier performance. More details can be found on our website **www.microgard.com**

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