ALPHACHEM X350

LIMITED LIFE CHEMICAL COVERALL

The Alphachem X350 is constructed from a unique non-woven composite, engineered to offer a high level of barrier to the permeation of organic, inorganic chemicals and infective agents. The material provides a very high level of strength and durability combined with good levels of drape.



BENEFITS

- Manufactured using polyethylene and EVOH barrier composite, bonded structural spunbonded and polypropylene base layer suitable for higher risk applications
- Tough and durable
- Improved fit, enhanced freedom of movement with a re-enforced crotch
- Double zip system and grab tag to support with an emergency. Easy to hold when wearing gloves
- Reinforced knee patches for extra durability when kneeling
- Stitched and fully taped seam stitching and elastication
- Elasticated wrists and ankles for secure fit
- Three piece hood construction for better fit
- Available in a wide range of sizes
- Double sleeve system with inner thumb loop ensuring arm protection to support when arm is raised
- Made from a highly visible orange composite

EN STANDARDS

EN 1073-2: 2003	EN 1149-5: 2008	EN 14126: 2003	EN 14605+ A1:2009
Class 1		Type 3B, 4B, 5B, 6B	Type 3

EN 14605 +A1:2009	EN ISO 13982-1: 2004 + A1:2009	EN 13034: 2005+A1:2009
Type 4	Type 5	Type 6

SUITABLE APPLICATIONS

- Decontamination Work Pressure Cleaning
- Hazardous Chemical Spill Response
- Hazardous Waste Disposal
- Petrochemical Plant Maintenance
- Plant Maintenance
- Tank Cleaning

ALPHACHEM X350

Limited life chemical coverall

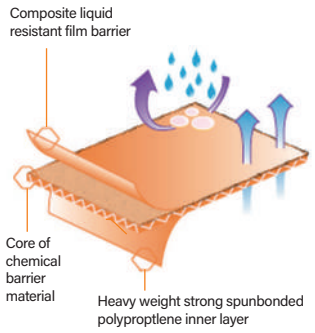
TECHNICAL SPECIFICATIONS

FABRIC PHYSICAL TESTS ACCORDING TO EN 14325: 2004		
TEST METHOD	RESULT	EN CLASS
Abrasion Resistance EN530 Method 2	>2000 cycles	6 of 6
Flex ISO 7854 Method B	>1,000 <2,500 cycles	1 of 6
Tear Resistance EN ISO 9073-4 (MD)	70.4 N	4 of 6
Tear Resistance EN ISO 9073-4 (CD)	66.1 N	4 of 6
Tensile Strength ISO 13934-1 (MD)	150.0 N	3 of 6
Tensile Strength ISO 13934-1 (CD)	120.0 N	3 of 6
Puncture Resistance EN 863	19.0 N	2 of 6

OTHER PHYSICAL PERFORMANCE DATA	
DESCRIPTION	RESULT
BS EN 20811 Resistance to Water Penetration	>72 kPa
ISO 13938-1 Bursting Resistance	337 kPa Class 4 of 6
EN 25978 Resistance to Blocking	No Blocking
EN 1149-1 Electrostatic Surface Resistance	PASS
EN 14362-1 Arylamines derived from Prohibited Azo Dyes	None Detected
EN ISO 3071:2006 pH of Aqueous Extract	PASS

EN 14126: 2003 - BARRIER TO INFECTIVE AGENTS		
TEST METHOD	RESULT	EN CLASS
ISO 16603 - Resistance to penetration by blood/fluids under pressure	Pass to 20 kPa	6 of 6
ISO 16604 - Resistance to penetration by blood borne pathogens	Pass to 20 kPa	6 of 6
EN ISO 22610 - Resistance to wet bacterial penetration (mechanical contact)	Penetration >75 mins No Penetration	6 of 6
ISO/DIS 22611 - Resistance to biologically contaminated aerosols	Penetration Ratio Log10 CFU >5 No Penetration	3 of 3
ISO 22612 - Resistance to dry microbial penetration	Penetration Log Log10 CFU <1 No Penetration	3 of 3

MATERIAL COMPOSITION



CHEMICAL PERMEATION	ADDITIONAL TESTS						
Chemical	CAS Number	Generic Representation	MDPR µg/cm2/min	BDT Minutes	SBT (Minutes) 0.1µg/cm2/min	NBT(Minutes) 1.0µg/cm2/min	EN Class
Acetone (99.9wt%)	67-64-1	Ketone	0.02	>480	>480	>480	6 of 6
Acetic Acid (glacial 99.88wt%) #	75-05-8	Nitrile Compound	0.03	>480	>480	>480	6 of 6
Acrylic Acid (90wt%)#	64-19-07	Carboxylic Acid	0.05	49	63	131(lowest 62)	3 of 6
Acetyl Chloride (99.3wt%)	75-36-5	Acyl Chloride	0.05	24	33	40	2 of 6
Acrylic Acid (99wt%)#	79-10-7	Carboxylic Acid	0.06	61	65	280 (lowest 95)	3 of 6
Acrylic Acid (99wt%)**	79-10-7	Carboxylic Acid	0.04	116	159	192	4 of 6
Ammonia (aqueous solution, 35wt%)	1336-21-6	Aqueous Ammonia	0.04	57	64	118	3 of 6
Ammonia Gas (99.98wt% 1 atmos.) #	7664-41-7	Basic Gas	0.04	21	24	47	2 of 6
Benzene (99.99wt%)	71-43-2	Hydrocarbon	0.01	320	324	>480	6 of 6
Carbon Disulphide (99.9wt%) # 7	79-15-0	Sulphur containing organic compound	0.02	9	15	45(lowest 6)	0
Chloroacetic Acid (79wt% saturated)	79-11-8	Organochlorine compound	0.04	>480	>480	>480	6 of 6
Chlorine Gas (99.9wt% 1 atmos.)	7782-50-5	Halogen Gas	0.04	>480	>480	>480	6 of 6
Chlorosulfonic Acid (99.9wt%)	7790-94-5	Inorgainic Acid	0.05	>480	>480	>480	6 of 6
Dichloromethane (>99.9wt%) #	75-09-2	Chlorinated Hydrocarbon	0.05	4	7	20 (lowest 2)	0
Diethylamine (99.9wt%)	109-89-7	Amine	0.02	>480	>480	>480	6 of 6
Dimethylamine(40wt%)	134-40-3	Amine	0.04	146	237	>480	6 of 6
Ethyl Acetate (99.93 wt%) #	141-78-6	Ester	0.02	165	171	325	5 of 6
Formic Acid (90wt%)	64-18-6	Carboxylic Acid	0.03	324	>480	>480	6 of 6
Glutaraldehyde (50wt%)	111-30-8	Dialdehyde	0.02	>480	>480	>480	6 of 6
Hexamethylenediamine(98wt%)	124-09-4	Organic compound	0.04	>480	>480	>480	6 of 6
Hydroflouric Acid (60wt%)	7664-93-9	Inorganic Mineral Acid	0.04	>480	>480	>480	6 of 6
Hydrogen Chloride Gas (99wt% 1 atmos.)	7647-01-0	Inorganic Acid Gas	0.02	152	200	>480	6 of 6
Methanol (99.9wt%)	67-56-1	Primary Alcohol	0.05	>480	>480	>480	6 of 6
N,N-Dimethylformamide(99.94wt%)	68-12-2	Orgainic Amide	0.03	>480	>480	>480	6 of 6
n-Heptane (99.82wt%)	142-82-5	Saturated Hydrocarbon	0.01	>480	>480	>480	6 of 6
Nitric Acid (60wt%)	7697-37-1	Inorganic Mineral Acid	0.03	>480	>480	>480	6 of 6
Nitric acid (aq. 90wt%, fuming)	7697-37-2	Inorganic Mineral Acid	0.02	340	472	>480	6 of 6
Nitrobenzene(99.7wt%)	98-95-3	Organic compound	0.02	>480	>480	>480	6 of 6
Phenol- Liquified (89wt%)	108-95-2	Aromatic Organic compound	0.01	>480	>480	>480	6 of 6
Propylene Oxide(99.9wt%)	75-56-9	Organic compound	0.02	167	324	>480	6 of 6
Sodium Hydroxide (50wt%) *	1310-73-2	Inorganic Base	0.03	>480	>480	>480	6 of 6
Sulphuric Acid (96wt%) *	7664-93-9	Inorganic Mineral Acid	0.03	>480	>480	>480	6 of 6
tert-Butyl Methyl Ether(99.9wt%)	1634-04-4	Organic compound	0.02	392	439	>480	6 of 6
Tetrahydrofuran (99.9wt%)	109-99-9	Heterocyclic and Ether compound	0.02	6	6	10	no class
Toluene (99.99wt%)	108-88-3	Aromatic Hydrocarbon	0.01	>480	>480	>480	6 of 6
Xylenes (mixed isomers 99.7wt%)	1330-20-7	Xylenes+ethylbenzene	0.01	175	284	>480	6 of 6

MDPR = Minimum Detectable Permeation Rate
BDT = Breakthrough detection time (first appearance at the minimum detectable permeation rate)
SBT = standardized breakthrough time (at 0.1 ug/cm2/min).
NBT = Normalized breakthrough time (at 1.0 ug/cm2/min).

ASTM F739-12
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EN 16523-1:2015

The permeation data published have been generated for ChemDefend Co Ltd by independent accredited testing laboratories according to the specified test methods. The data is typically the average of three fabric samples tested unless otherwise stated. * Denotes tests also carried out on seam and results equivalent to or greater than material, only, test results. #Denotes mean of six measured samples. ** Denotes tested conducted to ISO 6529:2013.

SIZING

Wearer's Measurements

SIZE	CHEST (CM)	BODY HEIGHT (CM)
S	84-92	164-170
M	92-100	170-176
L	100-108	176-182
XL	108-116	182-188
XXL	116-124	188-194
XXXL	124-132	194-200

ORDERING INFORMATION

Part Number: ASC00002GF - X350 Orange Medium
ASC00002GH - X350 Orange Large
ASC00002GJ - X350 Orange X-Large
ASC00002GL - X350 Orange XX-Large
ASC00002GN - X350 Orange XXX-Large

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