



Product Specification

MICROCHEM by AlphaTec™ 68-4000 Series

Welded and Taped Seam Coveralls

PRODUCT NOMENCLATURE

Product Name: Microchem by AlphaTec Series 68-4000 Coveralls
Style number: 68-4000 Welded and Taped Seam Series (see also below "Models within Series")

MODEL	SIZES	COLOR	DESCRIPTION
GR40-T-92-103-size	02-09 (S-5XL)	Green	Collar
GR40-T-92-111-size	02-09 (S-5XL)	Green	Hooded
GR40-T-92-121-size	02-09 (S-5XL)	Green	Hooded with attached gloves
GR40-T-92-122-size	02-09 (S-5XL)	Green	Hooded with attached socks/boot overlap
GR40-T-92-125-size	02-09 (S-5XL)	Green	Hooded with attached socks and gloves/boot overlap
GR40-T-92-162-size	02-09 (S-5XL)	Green	Hooded with pass through for fall arrest equipment
GR40-T-92-126-size	02-09 (S-5XL)	Green	Level B fully encapsulated APOLLO (see separate specification)
GR40-T-92-151-size	02-09 (S-5XL)	Green	Level B, hooded with attached socks/boot overlap, neoprene face seal
GR40-T-92-151-size-G02	02-09 (S-5XL)	Green	Hooded with single zip, single sleeves

PRODUCT DESCRIPTION

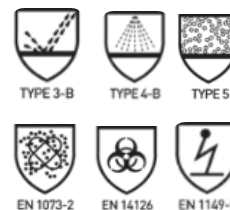
Design: Coverall with double zip entry, no drip double comfort cuffs and boot overlaps; elasticated wrists, ankles and waist, hoods are elasticated in applicable models.

Garment material: 101 gsm multi layer barrier laminate (2.98 oz/yd²)

Garment seams: Welded and taped

OUTSTANDING CHARACTERISTICS

- ▶ 2-piece elasticated hood for respirator use
- ▶ Double zip system ensures a liquid tight seal and eliminates the need for taping
- ▶ Whole suit inward leakage testing ensures performance of the garment system, not just the fabric
- ▶ No-drip double cuffs and boot overlaps, comfort cuffs are knit to improve comfort
- ▶ Elasticated wrists, ankles and waist provide optimized ergonomic fit for greater wearer comfort
- ▶ Anti static and silicone free



APPLICATIONS

Chemical processing, handling and transportation, oil and petrochemical processing, hazardous waste remediation, industrial tank cleaning, sewage treatment and purification, HAZMAT response, mining, agriculture. Designed to protect against strong directional jets of chemicals (Type 3), saturation of chemicals (Type 4) and hazardous dusts (Type 5).

TECHNICAL DATA*

Fabric Physical Properties	Test Method	Result
Tensile strength (MD)	ASTM D5034/EN ISO 13934-1	66.6 lbs/172N, EN 14325 Class 2/6
Tensile strength (TD)	ASTM D5034/ EN ISO 13934-1	51.4 lbs/84N, EN 14325 Class 2/6
Tear resistance (MD)	ASTM D5733/EN ISO 9073-4	29.4 lbs/88N, EN 14325 Class 3/6
Tear resistance (TD)	ASTM D5733/EN ISO 9073-4	21.1bs/44N, EN 14325 Class 3/6
Burst strength	ASTM D3787/EN ISO 13938-1	158 lbs/116kPa, Class 2/6
Flame spread	16 CFR §1610	Class 1
Abrasion	EN 530	2000 cycles, EN 14325 Class 6/6
Flex cracking	EN ISO 7854	40,000 cycles, EN 14325 Class 5/6
Puncture resistance	ASTM D2582/EN 863	29.4N/162N, EN 14325 Class 2/6
Surface resistance @40% rh	AATCC 76	6.5 x 10 ⁹ ohms face, 3.6 x 10 ⁹ ohms back
Surface resistance @25% rh	AATCC 76	3.5 x 10 ¹⁰ ohms face, 3.8 x 10 ¹⁰ ohms back
Barrier Properties	Test Method	Result
Fabric hydrohead – resistance to water penetration	AATCC 127	>127

WHOLE SUIT TECHNICAL DATA*

Properties	Test Method	Result
Type 3 jet spray test	EN ISO 17491-3	Pass
Type 4 high level spray test	EN ISO 17491-4 Method B	Pass
Type 5 particle inward leakage	ISO 13982-2	L _{pm,82/90} < 30 %; L _{s,8/10} < 15 %
Barrier to radioactive particles	EN 1073-2	Class 1/3
Seam Strength	EN IO 13935-2	Class 4/6

CHEMICAL RESISTANCE DATA (GARMENT MATERIAL)			
Chemical	CAS Number	EN ISO 6529 BT _{1.0ug/cm2/min} (min)	ASTM F739 BT _{0.1ug/cm2/min} (min)
Acetone*	67-64-1	>540	131
Acetonitrile*	75-05-8	>540	>540
Ammonia, anhydrous*	7664-41-7	-	18
1,3 Butadiene*	106-99-0	>540	>540
Carbon disulfide*	75-15-0	2	2
Chlorine gas*, 99.8%	7782-50-2	>540	>540
Dichloromethane* 99.9%	75-09-2	9	Immediate
Dimethylformamide*	68-12-2	>540	>540
Ethyl acetate* 99.98%	141-78-6	>540	43
Ethylene Oxide* (gas)	75-21-8	>540	>540
n-Hexane* 99.8%	110-54-3	>540	>540
Hydrogen chloride gas* 99.0%	7647-01-0	>540	125
Methanol*	67-56-1	>480	>540
Methyl chloride*	74-87-3	>540	>540
Nitrobenzene*	98-95-3	>540	>540
Sodium hydroxide* 50%	1310-73-2	>540	>540
Sulfuric acid* 96%	7664-93-9	>540	>540
Tetrachloroethylene*	127-18-4	>540	222
Tetrahydrofuran* 99.8%	109-99-9	-	Immediate
Toluene*	108-88-3	>540	69

*Chemical Specified by ASTM F1001

Microchem by AlphaTec 68-4000 has been permeation tested against more than 180 chemicals and new chemicals are being added regularly. For an up to the minute list of chemicals and results please see the [Microchem by AlphaTec Chemical Permeation Guide](http://www.ansell.com/chemicalclothingpermeationguide) or visit www.ansell.com/chemicalclothingpermeationguide

RESISTANCE TO INFECTIVE AGENTS AND BLOOD BORNE PATHOGENS		
Properties	Test Method	Result
Resistance to penetration by blood under pressure	ISO 16603	Pass to 20kPa
Resistance to penetration by blood borne pathogens	ASTM F1671/ISO 16604	Pass/Pass to 20kPa
Resistance to wet bacterial penetration	ISO 22610 mechanical contact	No penetration up to 75 min
Resistance to biologically contaminated aerosols	ISO/DIS 22611	No penetration
Resistance to microbial penetration	ISO 22612	No penetration

GUARANTEE
These products are manufactured to rigid specifications under strict conditions of process and quality control set forth by Ansell and are guaranteed against defect in workmanship or material and will be replaced or credited if returned for examination. This guarantee does not apply to deterioration caused by excessive wear, age, accident or prolonged exposure to strong solvents.

GENERAL INFORMATION
SHELF LIFE: 5 years shelf life in dry, cool, covered conditions.
MFR LOCATION: China

CREATED: October 2015
UPDATED:
REVISION #: 0

Products that provide protection against chemicals are not 'chemical proof' and do not completely prevent or eliminate the potential for chemical burns or associated injuries. Neither this document nor any other statement made herein by or on behalf of Ansell should be construed as a warranty of merchantability or that any Ansell product is fit for a particular purpose. Ansell assumes no responsibility for the suitability or adequacy of an end-user's selection of Chemical Protective Product for a specific application.

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