TUFF GARD COVERALLS

*item #00-KG1414
*microporous coveralls
*Tuff Gard brand
*white color
*with boot and with head cover

*25 coverall per master case
*742 total master cases
*18,550 total coveralls
*medium = 4,375
*large = 14,175

Microporous coveralls are a type of protective clothing designed to shield the wearer from hazardous materials, particles, and limited liquid splashes, while still allowing some breath ability. They are commonly used in industries like healthcare, pharmaceuticals, chemical handling, clean rooms, painting, and asbestos removal.

What does “microporous” mean in this context?

The term refers to the fabric of the coverall, which contains microscopic pores (typically less than 2 nanometers). These pores are:

- Small enough to block liquids, aerosols, and solid particles (like dust or fibers)
- Large enough to allow water vapor to pass through, giving some breath ability for comfort

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Feature	Description
Barrier protection	Protects against dust, dirt, and non-hazardous splashes
Microporous film layer	Usually laminated on a non-woven fabric (e.g., polypropylene)
Breathable	Allows sweat and moisture vapor to escape
Lightweight & disposable	Often single-use for hygiene or contamination control
Anti static options	Available for use in environments with static-sensitive equipment

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Typical Protection Standards:

Microporous coveralls may comply with various PPE standards, depending on their design and purpose:

- EN 14126: Protection against infectious agents
- EN 13982-1 (Type 5): Protection against solid particles
- EN 13034 (Type 6): Limited splash protection
- And many others not listed here

Common Use Cases:

- Medical environments (e.g., isolation gowns, pandemic response)
- Clean-room operations
- Spray painting & coating
- Asbestos abatement
- Pharmaceutical manufacturing
- General industrial maintenance

SPECIFICATION SHEET -MICROPOROUS COVERALL

Item No	**1414 - WITH HOOD AND WITH BOOT**
Material	100% microporous
Packing	1pc/polybag, 25pcs/ctn
Dimensions	S, M, L, XL, 2XL, 3XL, 4XL, 5XL
Gram:	65G/M2
Machine	sewing machine
Method	1）material cutting according to size 2）sewing from microporous material into exact specification and style （w/hood & boots, elastic cuffs, no elastic on waist & ankles, with zip & zip guard, white）

SUGGESTED STORAGE

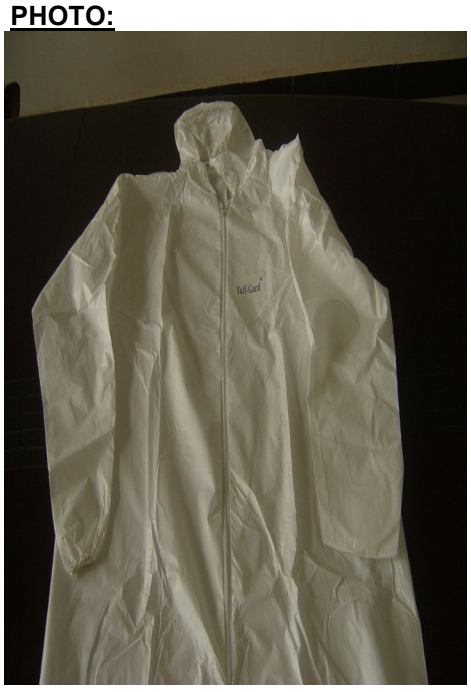
Temperature	: Between –5°C and 40°C
Humidity	: Below 80°C
Sunlight	: Not to be exposed to direct sunlight
Frequency	: To be kept away from high frequency equipment

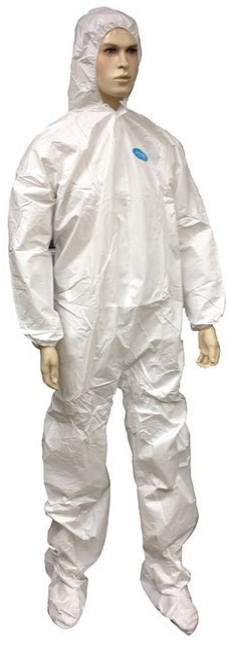
STERILIZATION

Gamma radiation	: Possible not advised, causes color changes and increased aging
Autoclave	: No
ETO	: Yes Pre-treatment cycle 16 – 72 hrs Gas contact – 3 hours / 850 mg Evaporation 48 hours at 40°C
Intended use	: General medical and non-medical protection, minimal risk only class I
Country of origin	: China

Code	Color	Qty/ctn	Gross Weight	Net Weight	Carton size
1414	white	25pcs	6 kgs	5.5kgs	32x27x30cm

PHOTO:



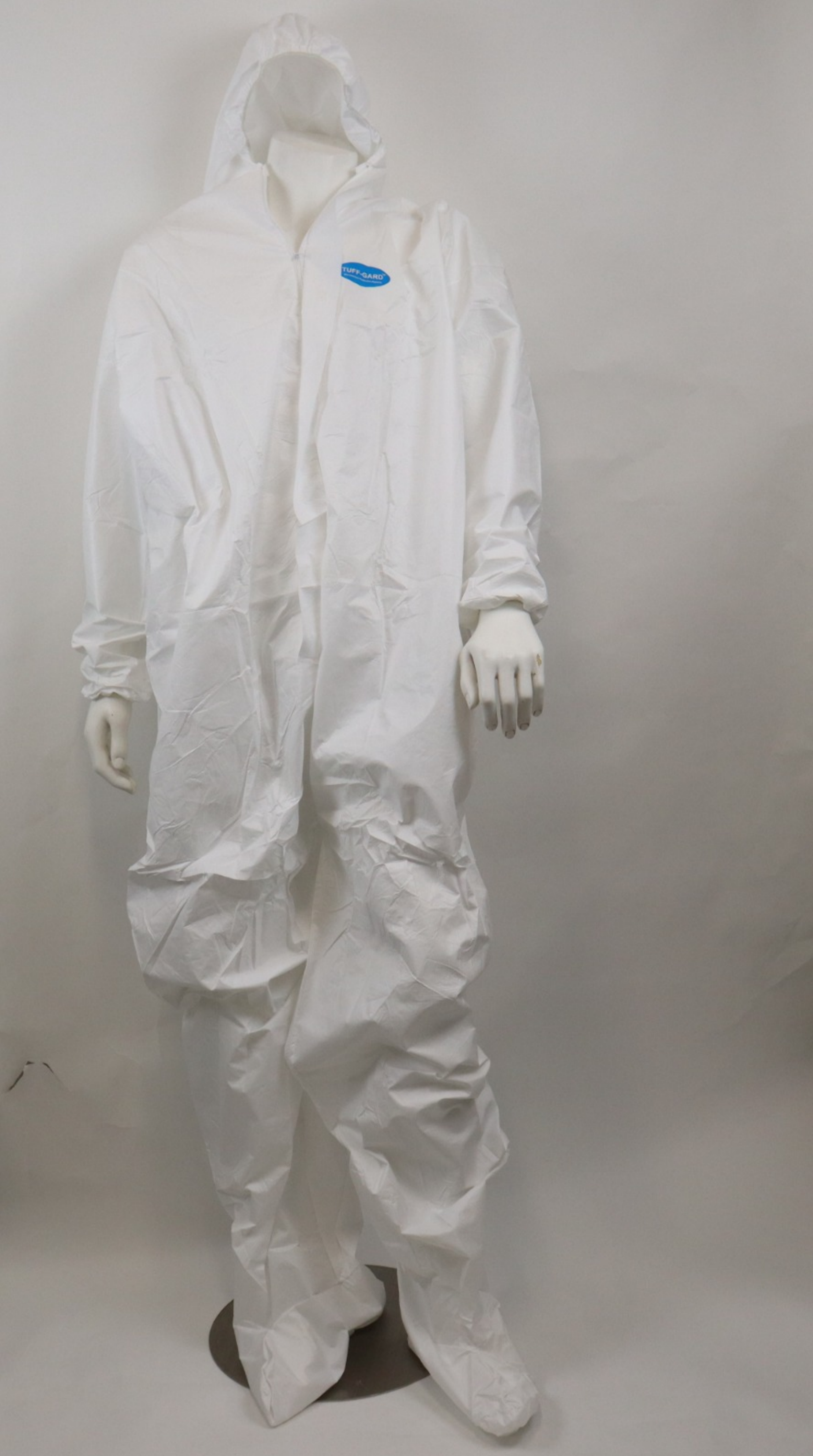


Subject to modification without prior notice.

New Coverall Size	S	M	L	XL	XXL	XXXL
A: Height	164	172	178	182	186	190
B: Chest Circumference	134	138	142	146	150	154
C: Sleeve Length	58	58	60	60	61	61

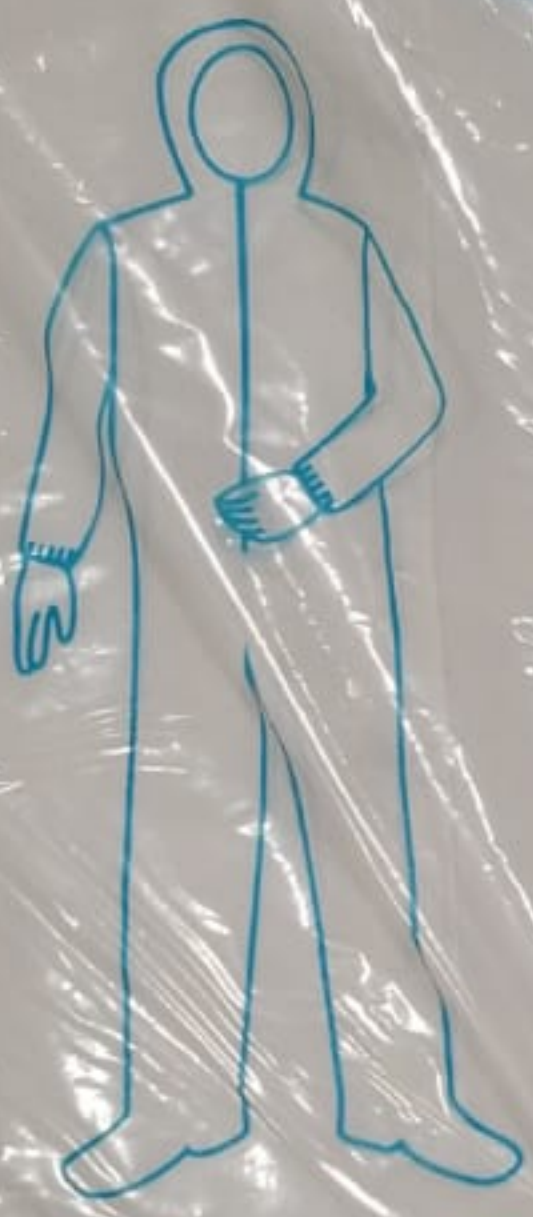
Test Items	Test Standard	Test Methods	Grade	Minimum
PH value	EN340	EN3071:2006	Passed	9.3 (3.5 < pH < 9.5)
Seam strength	EN13982/13034	13935-2	Class 3	96.8N
Wear testing	EN13982/13034	EN530	Class4	1000 cycles
Trapezoidal tear (longitudinal)	EN13982/13034	EN9073-4	Class2	51.9N
Trapezoidal tear (horizontal)	EN13982/13034	EN9073-4	Class2	28.2N
Rachyan (longitudinal)	EN13034	EN13934-1	Class1	89.8N
Rachyan (horizontal)	EN13034	EN13934-1	Class1	50.2N
Elongation (longitudinal)	EN13034	EN13934-1		84%
Elongation (horizontal)	EN13034	EN13934-1		68.00%
Puncture	EN13034	EN863	Class2	11.3N
Flexural crack degree	EN13982/13034	EN7854	Class6	100,000
Leakage of solid particles (T5 performance requirements)	EN13982/13034	ISO 13982-2	Passed	Ljmn82/90=6.8% · Ls8/10=3.2%
Spray test (T6 performance requirements)	EN13034	ISO17491-4	Passed	No penetration
Water repellency	EN13034	ISO6530	Passed	Sheet3!A1
Anti-liquid leakage	EN13034	ISO6530	Passed	Sheet3!A1
Hydrostatic testing artificial blood	EN14126	ISO16603	Class3	3.5Kpa
Phage hydrostatic test	EN14126	ISO16604	Class3	3.5Kpa
Anti-air pollution solid particles	EN14126	ISO22612	Class3	Log=0.8
Wet virus penetrates	EN14126	ISO22610	Class2	15<t≤ 30
Anti-contaminated liquid aerosol	EN14126	ISO22611	Class1	Log=1.2
Breaking up	EN13982/13034		Class3	202Kpa

Physical Properties	Test Methods	Units	Results
MD Tensile （Grab）	IST110.1	lb/in	27.5
CD Tensile （Grab）	IST110.1	lb/in	18.3
MD Elongation	IST110.1	%	71.7
CD Elongation	IST110.1	%	79.2
MD Tear Strength （Trapezoid）	IST110.2	lb/in	7.3
CD Tear Strength （Trapezoid）	IST110.2	lb/in	11.1
Bursting Strength （Mullen Burst）	IST30.1	psi	32.9
Hydrostatic Head	IST80.6-01（Testex）	cm	191.3
Static Decay （MD）（50% RH）NFPA99	IST40.2	sec	Pass
Resistence to Blood Penetration	ASTM1670	n/a	Pass
M.V.T.R.	IST70.2	g/m2/day	2863


TUFF-GARD

TUFF-GARD

SMS Material Protective Apparel



Style: 00-KG1414

Size: S☐ M☐ L☐ XL☐ 2XL☐
3XL☐ 4XL☐ 5XL☐ 6XL☐

Barcode:

840085701610

TUFF-GARD

Microporous Protective

S

TUFF-GARD™

Microporous Protective Apparel

ITEM NO: 00-KG1414-S

DESCRIPTION: MICRO POROUS FILM COVERALL W/HOOD,& BOOTS (NON-MEDICAL USE)

SIZE: S

PACKING: 25/CS

PO# VEME060520-141

GROSS WEIGHT: 5.0KGS

NET WEIGHT: 4.6KGS

MEASUREMENT: 12.6"x10.6"x19.7"

MADE IN CHINA

10-40085701658

TUFF-GARD™
Microporous Protective Apparel

ITEM NO: 00-KG1414-XL
DESCRIPTION: MICRO POROUS FILM COVERALL
W/HOOD,& BOOTS (NON-MEDICAL USE)
SIZE: XL
PACKING: 25/CS
PO# VEME062920-144
GROSS WEIGHT: 5.0KGS
NET WEIGHT: 4.6KGS
MEASUREMENT: 12.6"x10.6"x19.7"
10-40085701665
MADE IN CHINA

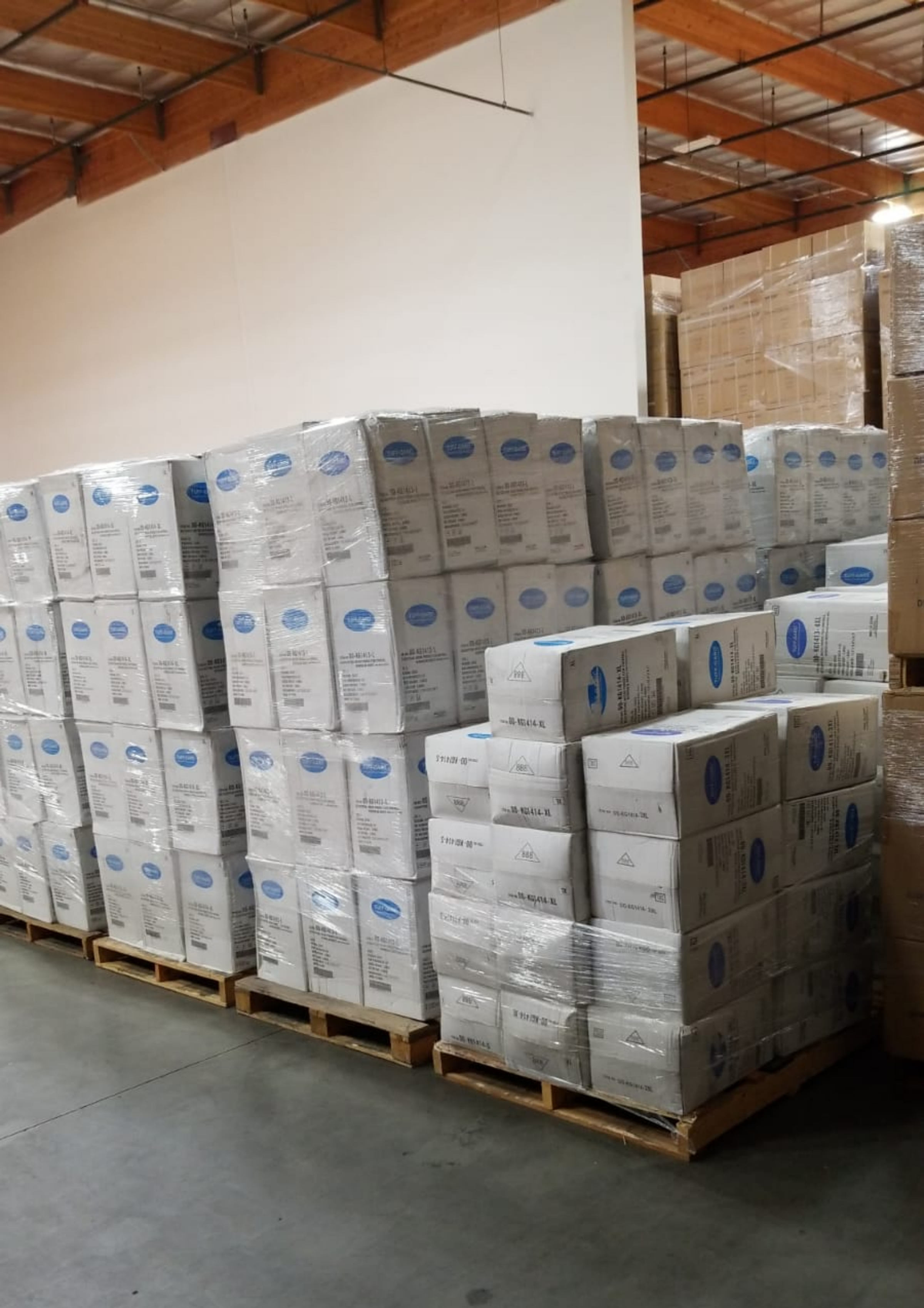
XL

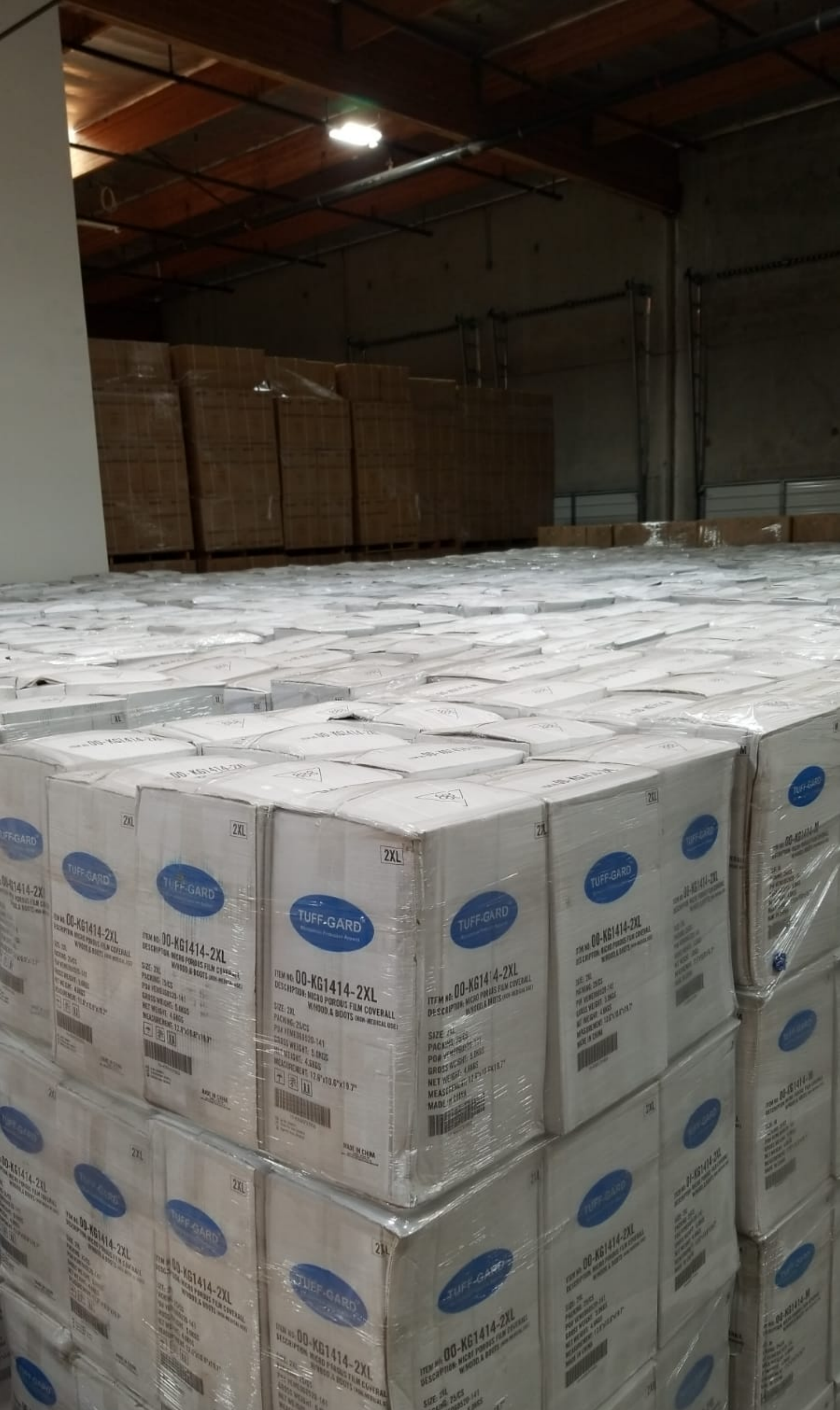
TUFF-GARD™
Microporous Protective Apparel

ITEM NO: 00-KG1414-XL
DESCRIPTION: MICRO POROUS FILM COVERALL
W/HOOD,& BOOTS (NON-MEDICAL USE)
SIZE: XL
PACKING: 25/CS
PO# VEME062920-144
GROSS WEIGHT: 5.0KGS
NET WEIGHT: 4.6KGS
MEASUREMENT: 12.6"x10.6"x19.7"
MADE IN CHINA

XL

3XL




TUFF-GARD
ITEM NO: 00-KG1414-2XL
DESCRIPTION: MICRO POROUS FILM COVERALL
W/HOOD & BOOTS
SIZE: 2XL
2XL