EPDM RADIATION RESISTANT BOX GLOVES



PRODUCT FEATURE

- Manufactured with advanced transfer molding to provide excellent physical properties and targeted reinforcement in high-wear zones.
- Environmentally friendly and solvent-free production.
- Outstanding Radiation Protection Lead Equivalent = 0.2mmPb, 0.15mmPb, 0.1mmPb,0.05mmPb, 0.025mmPb. According to requirements, products with a lead equivalence greater than 0.2mmPb are also available.
- Lead Free, made of Ethylene Propylene Diene Rubber (EPDM).
- Excellent chemical resistance, ozone resistance and wear resistance.
- High durability plus ideal dexterity and comfort.

FIELD OF APPLICATION

Nuclear industry, Aerospace industry, Nuclear medicine, Nuclear research

TECHNICAL INFORMATION

Technology	Transfer Molding	**Certification**	GB 38452, GBZ/T147, GB 24541, GB 28881
Lead Equivalent	0.2mmPb, 0.15mmPb, 0.1 mmPb, 0.05mmPb, 0.025mmPb	**Color**	Black
Basic Material	EPDM	**Surface Finish**	Smooth
Palm Feature	Ambidextrous	**Applicable Temperature**	-30℃ ~125℃
Cuff Style	With Rolled Bead	**Length**	800mm
Thickness	0.8mm	**Hand Size**	10#
Port Size	6'', 7'', 8''	**Shelf Life**	36 months
Packaging	Each piece vacuum-sealed in a plastic bag	**Case Pack**	10 pairs / box
Manufacturer	East Rock	**Country of Origin**	China
Function	Resistant to radiation, chemical, solvent, UV		

RADIATION SHIELDING PERFORMANCE

Test standard:GBZ/T147-2002

Determination of attenuation properties for protective materials against X-rays

Test Source	keV	Shielding Ratio	Lead Equivalent
^{137}Cs	662	-3.62%	0.21mmPb

RADIATION RESISTANCE PERFORMANCE

Test standard: GB 38452-2019

Hand protection—Protective gloves against ionizing radiation and radioactive contamination

TEST ITEM	REQUIREMENT	TEST RESULT	DECISION
Radiation Resistance	Irradiation dose > 5×10^{4}Gy	Irradiation dose: 5.2×10^{4}Gy	Pass

MECHANICAL PERFORMANCE

TEST STANDARD	TEST ITEM	LEVEL	TEST RESULT
GB 24541-2022 (is equivalent to EN 388:2016+A1:2018)	Abrasion Resistance	3	≥ 2000 Cycles
	Blade Cut Resistance	1	≥2.13
	Tear Resistance	1	≥18.64 N
	Puncture Resistance	1	≥43.75 N
TEST ITEM	**REQUIREMENT**	**TEST RESULT**	**DECISION**
Tensile strength (before irradiation)	≥12 MPa	14.5 MPa	Pass
Elongation at break (before irradiation)	≥500%	567%	Pass
Tensile strength (after irradiation)	≥10 MPa	12.6 MPa	Pass
Elongation at break (after irradiation)	≥500%	559%	Pass
Tear strength (before irradiation)	≥20 kN/m	22.7 kN/m	Pass
Tear strength (after irradiation)	≥15 kN/m	21.9 kN/m	Pass
Hardness	≥ Shore A 55	Shore A 57	Pass
Air Tightness	$\leq5\times10^{-4}/h^{-1}$	$4.1\times10^{-4}/h^{-1}$	Pass

CHEMICAL PERFORMANCE

TEST STANDARD	TEST METHOD	LEVEL	TEST RESULT
GB 28881-2012 Permeability Resistance	Acetone	Grade 6	>480 min
	Ethyl acetate	Grade 6	>480 min
	40% Sodium hydroxide	Grade 6	>480 min
	96% Sulfuric acid	Grade 6	>480 min
	65% Nitric acid	Grade 6	>480 min
	30% Hydrogen peroxide	Grade 6	>480 min
	40% Hydrofluoric acid	Grade 6	>480 min
EN ISO 374-4 Resistance To Degradation By Chemicals	**CHEMICAL**	**OBSERVATION**	**TEST RESULT**
	Acetone	No change	13.61%
	Ethyl acetate	No change	–16.60%
	40% Sodium hydroxide	No change	27.18%
	96% Sulfuric acid	No change	16.32%
	65% Nitric acid	No change	25.39%
	30% Hydrogen peroxide	No change	–12.94%
	40% Hydrofluoric acid	No change	16.32%