

# Adhesive Radiation Protection Sheets

## Flexible Elastomeric Sheet for Radiation Protection from X-rays and Gamma Radiation

Selection Guide for Intech range of flexible, adhesive-backed radiation shielding. Adhesives are suitable for application to a wide range of substrates including plastics, metals, wood, powder coated and painted surfaces. Custom applications can be supported.

SKU	Lead Equiv. (100 kVp)	Weight, kg/m <sup>2</sup>	Thickness, mm	Peel Strength (oz/in) Steel	Finish	Notes
XRC101-RNB125-PSA	0.125 mm	2.0	0.6	120	Smooth, Natural Brown Rubber	
XRC101-UBK125-PSA	0.125 mm	2.0	0.7	120	Smooth, Black, UHMW Skin	
XRC135-VSB125-PSA	0.125 mm	2.0	1.1	70	Smooth, Light Blue, Vinyl Skin	
XRC116-RBL125-PSA	0.125 mm	2.2	1.3	80	Smooth, Royal Blue, Rubber Skin	Food Contact Compliant
XRC102-RNB250-PSA	0.25 mm	3.4	1.0	120	Smooth Natural Brown Rubber	Broad Spectrum to over 300 kV
XRC102-UBK250-PSA	0.25 mm	3.4	1.1	120	Smooth, Black, UHMW Skin	Broad Spectrum to over 300 kV
XRC135-VSB250-PSA	0.25 mm	3.5	1.5	70	Smooth, Light Blue, Vinyl Skin	
XRC635-VBK250-PSA*	0.25 mm	4.2	1.5	70	Smooth, Black, Vinyl Skin	Broad Spectrum to over 300 kV
XRC437-RBK280-PSA	0.25 mm	3.7	1.2	100	Textured, Black, PET-ET Skin	
XRC116-RBL250-PSA	0.25 mm	3.9	1.8	80	Smooth, Royal Blue, Rubber Skin	Food Contact Compliant
XRC135-VSB350-PSA	0.35 mm	4.7	1.9	70	Smooth, Light Blue, Vinyl Skin	
XRC635-VBK350-PSA*	0.35 mm	5.7	1.9	70	Smooth, Black, Vinyl Skin	Broad Spectrum to over 300 kV
XRC435-RBK430-PSA	0.35 mm	4.3	1.6	100	Textured, Black, PET-ET Skin	
XRC635-VBK500-PSA*	0.50 mm	7.9	2.4	70	Smooth, Black, Vinyl Skin	Broad Spectrum to over 300 kV
XRC435-RBK640-PSA	0.50 mm	6.4	2.1	100	Textured, Black, PET-ET Skin	
XRC114-RWT500-PSA	0.50 mm	8.6	3.5	40	Smooth, White, Rubber Skin	Registered Class 1 Medical Device
XRC434-RBK780-PSA	0.60 mm	7.8	2.1	100	Textured, Black, PET-ET Skin	
XRC442-RNB750-PSA	0.80 mm	8.5	1.5	120	Smooth, Natural Brown Rubber	Broad Spectrum to over 300 kV
XRC135-VSB001-PSA	1.0 mm	12.5	3.9	70	Smooth, Light Blue, Vinyl Skin	
XRC635-VBK001-PSA*	1.0 mm	14	3.9	70	Smooth, Black, Vinyl Skin	Broad Spectrum to over 300 kV
XRC432-RBK001-PSA	1.0 mm	10.4	2.4	100	Textured, Black, PET-ET Skin	Broad Spectrum to over 300 kV
XRC442-RNB155-PSA	1.6 mm	17	2.9	120	Smooth, Natural Brown Rubber	Broad Spectrum to over 300 kV
XRC442-RNB200-PSA	2.0 mm	21	3.5	120	Smooth, Natural Brown Rubber	Broad Spectrum to over 300 kV

(\* ) Products marked with an asterisk contain lead. All other products are Lead-free and ROHS Compliant.

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## Description and Features

Radiation protective shielding material with pressure sensitive adhesive backing.

- General purpose use for x-ray cabinets, medical and general NDT radiation shielding to reduce exposure to x-rays and gamma radiation.
- Peel & stick format for fast & simple application in almost any environment.
- High-strength 3M pressure sensitive adhesive backing with polycoated Kraft liner.

## Application

1. Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure develops better adhesive contact & thus improves bond strength. A 3" width rubber roller may be used to insure uniform pressure.
2. To obtain optimum adhesion, the bonding surfaces must be clean dry and well unified. Initially the surface should be degreased with appropriate cleaner or detergent. Rinse well and follow with wipe using isopropyl alcohol or other compatible solvent. Use proper safety precautions for handling solvents.
3. Ideal application temperature range is 21°C to 38°C (70°F to 100°F). Initial tape application to surfaces at temperatures below 10°C (50°F) is not recommended because the adhesive becomes too firm to adhere readily. However once properly applied low temperature holding is generally satisfactory.
4. Do not try to reposition after application.
5. Allow 72 hours for adhesive to fully cure. Bond strength increase as a function of time and temperature.

## Adhesive Properties

Special acrylic adhesive with excellent chemical resistance and bond strength even at elevated temperatures.

- Application Range: Bonds well to a wide variety of plastics, metals, wood, powder coated and painted surfaces.
- Heat Resistance: Long-term temperature resistance to 200 °F  
Short-term temperature resistance to 300 °F
- Humidity Resistance: High humidity has a minimal effect on adhesive performance.
- Water Resistance: Immersion in water has no appreciable effect on the bond strength.
- Chemical Resistance: When properly applied, parts will hold securely after exposure to numerous chemicals including gasoline, oil, mild acids and alkalis.

## Storage and Shelf Life

PSA-backed material should be stored at 72 °F and 50% RH to maximize shelf life. The PSA must be applied within 12 months of manufacture to insure proper adhesion. Materials stored over 12 months prior to use may not develop full adhesion upon application.

## Lead-Free Certification

All Intech Lead-free products are compliant with Directive 2011/65/EU of the European Parliament and the Council of 8 June 2011 for Restrictions of Hazardous Substances (RoHS) and that the maximum concentration values by weight for lead, hexavalent chromium, cadmium, mercury, polybrominated biphenyls and polybrominated diphenylethers are in compliance.