



**Boron
Rubbers
India**

INNOVATIVE RADIATION SHIELDING SOLUTIONS

**PIONEERING SAFETY
IN RADIATION
ENVIRONMENTS**

PREPARED FOR :

**Central & Eastern Europe
Nuclear Industry Congress**

(CEE NIC)

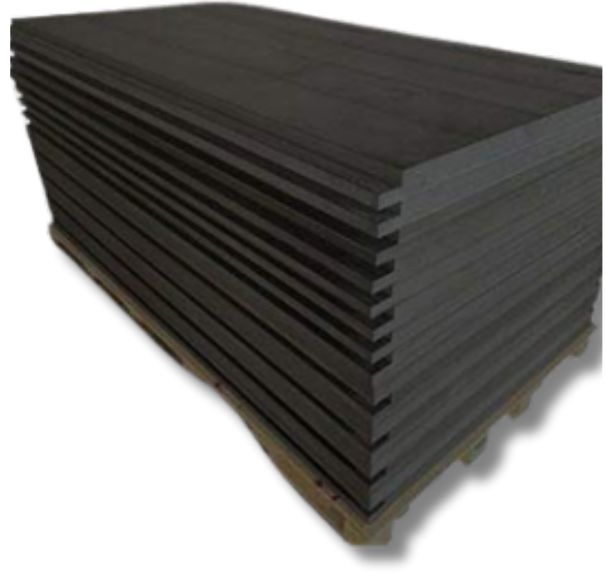


OUR PRODUCTS



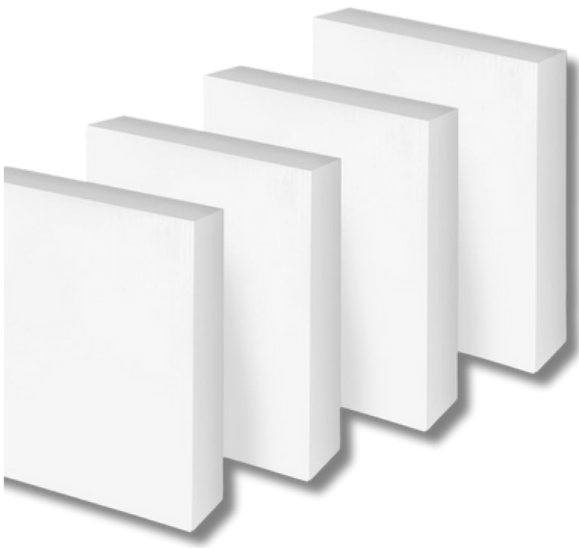
Flexible Boron Sheet

Flex Boron Sheet is a flexible, heat and ozone resistant synthetic polymer containing variable percentage of Boron (5% to 52%). This material has an extremely good attenuation factor for thermal neutrons providing an excellent shield against it.



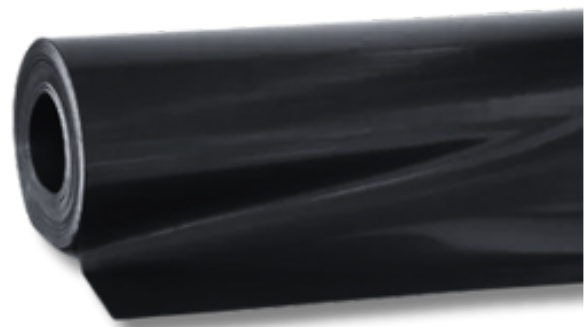
Boron Polyethylene

Boron Polyethylene combines polyethylene's high hydrogen content with boron (5% to 30%), ideal for shielding in low to intermediate neutron flux areas. It attenuates thermal neutrons, reduces capture gamma rays, and thermalizes fast neutrons and suits various shielding applications.



Pure Polyethylene (Shielding Grade)

Pure Polyethylene is a high-purity, ultra-high molecular weight polyethylene, often used as a moderator to slow fast neutrons to thermal energies. In high purity, density & Ultra highmolecular weight polyethylene.



Lead Boron Polyethylene Sheets

Lead Boron Polyethylene combines lead & boron in polyethylene providing an effective shield against mixed neutron/gamma fields. The hydrogen in polyethylene will thermalize fast neutrons. The lead provides shielding against primary gamma rays.



Heavy Shielding Structure

Heavy Shielding Structures provide robust radiation protection for high-radiation environments, ensuring maximum safety and stability in nuclear facilities, research labs, and industrial applications.



Shielding for Neutron Detectors

Boron Rubber India offers lightweight, cost-effective boronated rubber sheets for thermal neutron shielding, ideal for cancer treatment, radiation therapy, and security applications.



Beam Catchers

Beam Catchers effectively absorb neutron and gamma radiation, ensuring safety in reactor halls and neutron spectrometers by utilizing layered shielding materials like borated polyethylene, iron, lead, and boron rubber.



BORON Aluminium

Boron Aluminium consists of Aluminium having boron incorporated & uniformly distributed in aluminium. It is used in nuclear reactors for control rods etc. Aluminium is transparent to neutrons and boron absorbs fast neutrons.

OUR SERVICES

www.radiationshielding.in
Scan here to know more!



Boron Rubbers India provides advanced shielding solutions for fission and fusion reactors, beam lines, and nuclear generators. Their custom-engineered materials ensure high radiation protection, thermal resilience, and structural safety across critical nuclear systems.

We develop high-performance, neutron-absorbing composites for nuclear power plant control rods, ensuring reactor stability, efficiency, and safety in both current and next-gen reactor designs.

We offer detailed radiation shielding calculations using advanced simulation and material science to optimize protection in nuclear, industrial, and medical environments, balancing safety, efficiency, and cost-effectiveness.



RADIATION
SHIELDING



CONTROL ROD
MATERIALS



PRECISION
CALCULATIONS





Rising neutron & high-energy γ sources – accelerators, reactors, space payloads.

Lead-only barriers fall short – heavy, brittle, produce secondary γ -radiation.

Modern brief: lighter, modular, field-installable shielding that also supports circular-economy goals.

WHY BORON-10?

EXTREMELY HIGH
THERMAL-NEUTRON
CAPTURE
CROSS-SECTION

WHY ELASTOMER/POLYMER?

- FLEXIBLE SHEETS,
SLABS, ROLLS
- MACHINABLE ON
SITE
- CHEMICALLY &
OZONE RESISTANT

CONTROL ROD MATERIALS

B + H + C MATRIX
HYDROGEN MODERATES
FAST NEUTRONS,
BORON ABSORBS THERMAL
NEUTRONS,
CARBON BACKBONE ADDS
MECHANICAL STABILITY

PROPERTY	REPRESENTATIVE VALUE	PRODUCT
FAST + THERMAL-NEUTRON 3.3MM WITH 41% B CONTENT	ATTENUATION 95%	FLEXIBLE BORON SHEET
LIGHT WEIGHT NEUTRON ABSORBER (RIGID STRUCTURE) 1-30% B CONTENT	ATTENUATION 96%	BORON POLYETHYLENE
CONTROLS RODS APPLICATION	3-4% B CONTENT	BORON ALUMINIUM



Overview

Founding Story: Established in 2009 when Mr. D.A. Doshi identified a gap in affordable neutron shielding for Indian reactors.

Mission: To make every radiation workplace measurably safer through material innovation.

Core Values: Safety, integrity, continuous R&D, customer partnership.



Founding Family

Mr. Parth Doshi – Managing Director

Mr. D.A. Doshi – Founding Father; 35 years in specialty rubbers, mentor to India's early nuclear-shield projects.



Founder's Voice

We manufacture advanced rubber-based and radiation shielding products, developed with expert input and rigorous testing. These are used and trusted by nuclear industries and hospitals worldwide. Thanks to lower input costs in India, we offer them at highly competitive prices.

Long-term clients: BARC, NPCIL, Major DAE Facilities.



sales@boronrubbersindia.com



+ 91 278 2445049



E-36, ROAD 31/A,
BOL GIDC ESTATE, SANAND – II
AHMEDABAD – 382170