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ABOUT

# CROSS-LINKING

## CROSS-LINKING

Process that consists in modifying the properties of a material by irradiating it with gamma rays or an electron beam.



Physical resistance



Heat resistance



Chemical resistance



Barrier properties

## HOW DOES IT WORK?

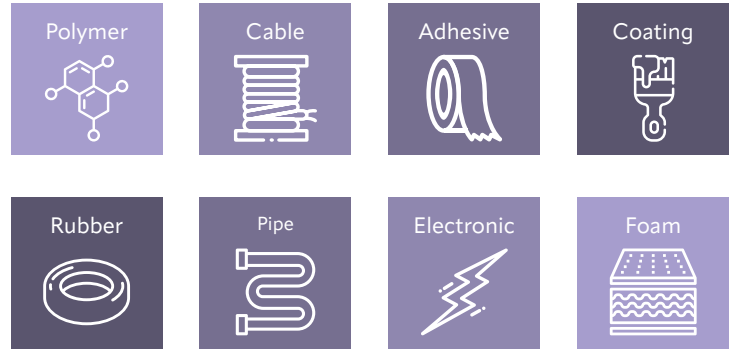
Cross-linking is a process of creating chemical bonds between polymer chains to turn their structure into a three-dimensional network. It can be accomplished through different methods, such as thermal, radiation, or chemical cross-linking.

Radiation cross-linking involves exposing the polymer to ionizing radiation, such as gamma or beta rays, to initiate the cross-linking reaction.

Cross-linking can enhance the physical and mechanical properties of polymers, such as their strength, stiffness, and resistance to heat, chemicals, and abrasion. Cross-linked plastics are used in a wide range of applications, including adhesives, coatings, composites, and elastomers.

The cross-linking process can also be used to modify the properties of natural polymers, such as proteins and polysaccharides, to create new materials with improved performance and functionality like hydrogels.

## COMPATIBLE WITH A WIDE RANGE OF PRODUCTS



And many more...

## ISO CERTIFICATIONS

### ISO 9001

All our cross-linking sites are ISO 9001 compliant. The ISO 9001 is the international standard that specifies requirements for a quality management system.

### ISO 50001

Our Bautzen site is ISO 50001 compliant. The ISO 50001 standard groups the requirements for establishing, implementing, maintaining and improving an energy management system.

