

CHLOROSULPHONATED POLYETHYLENE

More commonly known as Hypalon. This is a special purpose rubber formed by substituting chlorine and sulphonylchloride groups into polyethylene. General properties include moderate mechanical properties; excellent resistance to ozone, oxidation, weathering, and oxidizing chemicals. Its upper temperature limit is ca. + 150 °C. Hypalon® or Chlorosulfonated Polyethylene Rubber is made by DuPont-Dow. It is an elastomer and is a thermoset material. There are many grade variations of this specialty elastomer. A typical grade is 29 % chlorine content and 1.4 % sulfur content. Its neat product form is white, odorless chips. A distinguishing feature is that it is readily soluble in common solvents. The polymer has the following characteristics:

1. good low temperature flexibility
2. very good abrasion resistance
3. good chemical resistance
4. fair compression set resistance
5. fair flame resistance
6. very good heat resistance
7. excellent ozone resistance
8. fair petroleum oil resistance
9. excellent weather resistance
10. good low temperature properties
11. fair tear strength