NOVA Chemicals Joffre Site

How do we make polyethylene?

To make polyethylene, we use processes that link or polymerize ethylene molecules into chains of about 6000 molecules in length. A catalyst is added to start the bonding process between the ethylene molecules. Small amounts of comonomers, such as butene, hexene and octene are added to give the polyethylene unique physical properties.

There are a number of different process technologies available to make polyethylene. At the Joffre Site we use gas phase (Polyethylene 1) and solution processes (Polyethylene 2).

Of our many different polyethylene product grades, most are shipped to customers in pelleted form. Our markets are worldwide and our polyethylene used to make a wide variety of packaging materials and consumer products… such as grocery bags, milk containers, stretch film, agricultural films, large outdoor toys and housewares.