

## High-density polyethylene (HDPE)

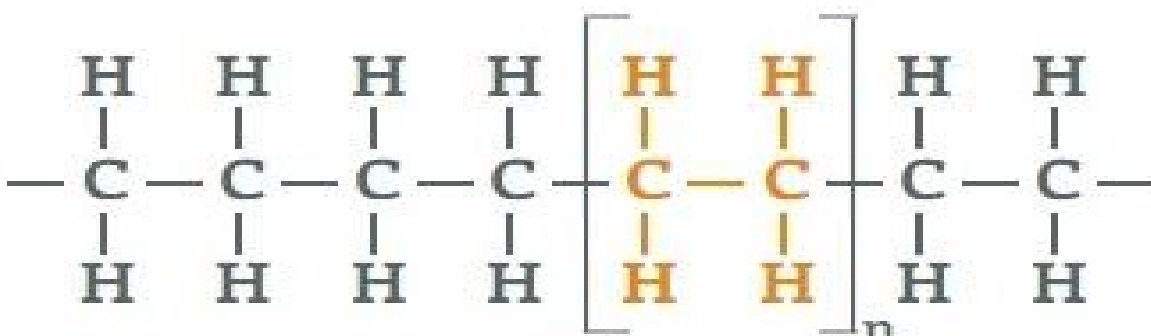
Polyethylene high-density (PEHD) is a thermoplastic polymer produced from the monomer ethylene. It is sometimes called "alkathene" or "polythene" when used for HDPE pipes. HDPE WELDING RODS are used widely to Welds HDPE sheets, Spiral Tanks, Sewerage Covers, Crates, Car bumpers Water Tanks, etc. Standard HDPE welding rods create moisture-resistant welds that will not expand when exposed to water. They are commonly used for welding windshield washer bottles, ATV fenders, kayaks, playground equipment, and other HDPE parts that will frequently get wet.

### Thermophysical properties of High-Density Polyethylene (HDPE)

Density	940 kg/m <sup>3</sup>
Melting Point	130.8 °C.
Temperature of crystallization	111.9 °C.
Latent heat of fusion	178.6 kJ/kg.
Thermal conductivity	0.44 W/m.°C. at °C.
Specific Heat Capacity	1330 to 2400 J/kg-K
Specific heat (solid)	1.9 kJ/kg. °C.
Crystallinity	60%

### Characteristics of High-Density Poly Ethylene (HDPE) Welding Rods:

HDPE sheeting is popular for a variety of reasons and depending on whom you ask; you'll often receive a number of different ideas as to what the biggest benefit is. The most notable benefits of the HDPE sheet include:



Molecular Structure of Polyethylene

**Weight:** HDPE is known for being extremely lightweight yet durable. **Malleability:** HDPE is easily molded and transformed into just about any shape or design.

**Resistance:** Not only does HDPE feature a high chemical and impact resistance, but it also is resistant to rotting, insects, mildew, and mold.

**Weather ability:** HDPE is often used for outdoor applications as it can stand some of the most extreme weather.

**Life-Span:** Because HDPE has such high impact, chemical, and weather resistance, HDPE can outlast traditional materials.

**Durability:** The durability of HDPE while being lightweight is one of the things that contribute to its popularity. If you've ever dropped a child's plastic toy, you've likely experienced the durability of HDPE, as HDPE does not shatter, rather it 'bounces' back.

**Sustainability:** HDPE sheeting is recyclable, which is why many recycled plastic products such as recycled plastic lumber and trash cans contain HDPE.

