

# High-Density Polyethylene (HDPE)



- HDPE has long virtually unbranched polymer chains which makes them really dense and thus, stronger and thicker from PET.
- It is made from the polymerization of ethylene. HDPE is manufactured at low temperatures and pressures, using **Ziegler-Natta and metallocene catalysts or activated chromium oxide**.
- It can be recycled. HDPE is relatively more stable than PET.
- It is considered as a safer option for food and drinks use.
- But it can leach estrogen-mimicking additive chemicals that could disrupt a human's hormonal system when exposed to ultraviolet light.

## Uses

- HDPE is commonly used as the grocery bag, opaque milk container, juice container, shampoo bottles, and medicine bottle.

## Recycling of HDPE

- Used HDPE bottle caps can be recycled into pens.
- First, the plastic is sorted and cleaned, to remove any unwanted debris. The plastic then needs to be homogenized, so that only HDPE will be processed.

