



COMMERCE SIAM PETROLEUM





About

unit covers procurement, import, export and international trade in several products including: crude oil, condensate, LPG, petroleum and petrochemical products, chemical solvents, crude palm oil, refined palm oil, palm kernel shells and other commodities.





CRUDE OIL

After its removal from ground, it'll be sent to a refinery to separate different parts of crude oil to usable petroleum products. Some of these products include gasoline, jet fuel, waxes, etc.





Petroleum

Products which were derived from crude oil when processed in oil refineries. Some of these products include aviation gasoline, naphtha, bitumen, etc.

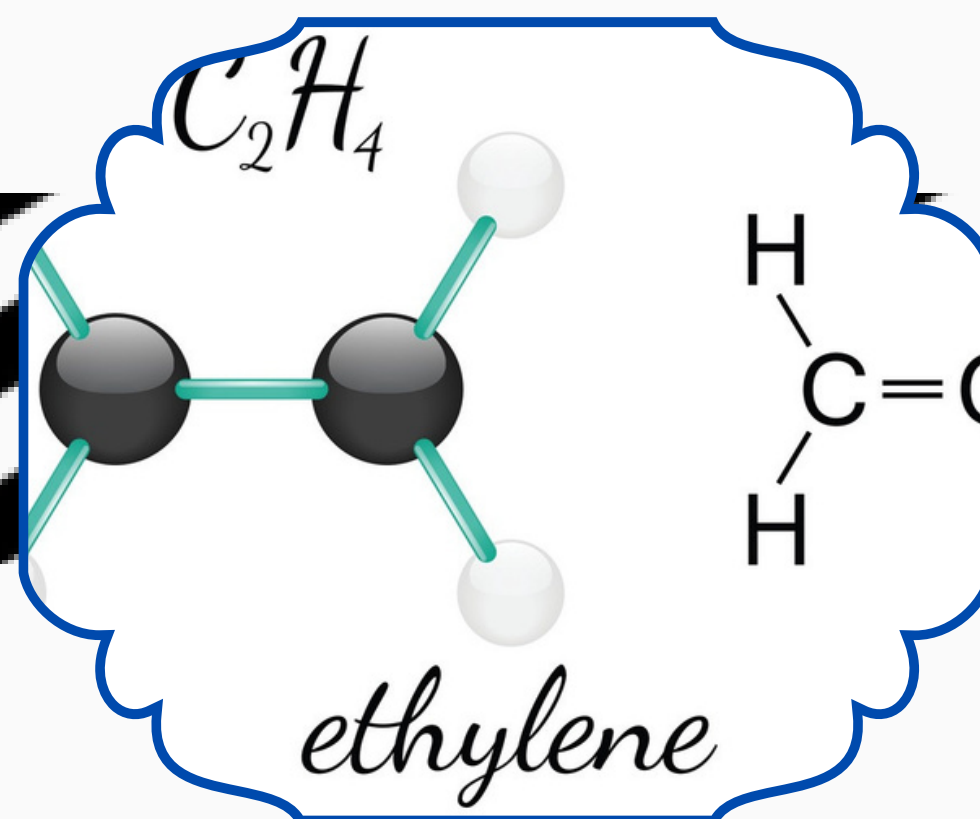
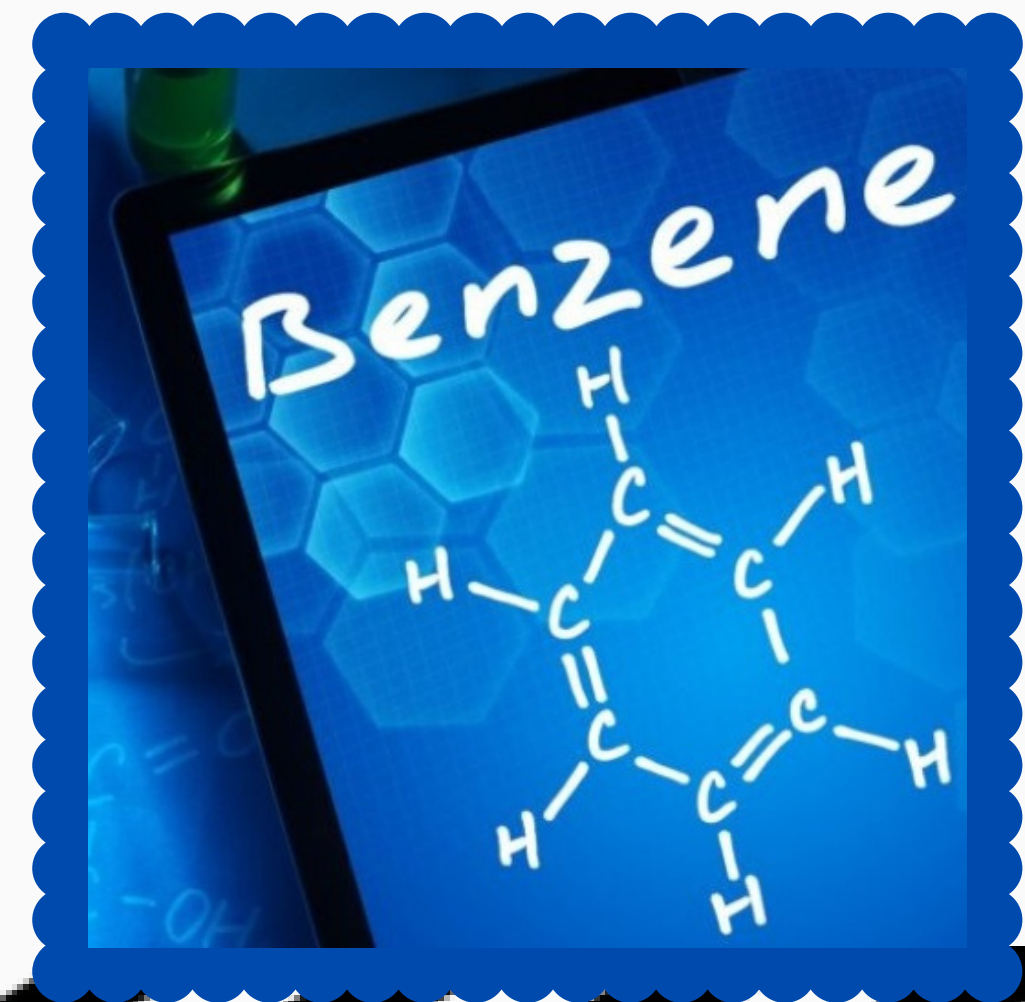




Petrochemicals

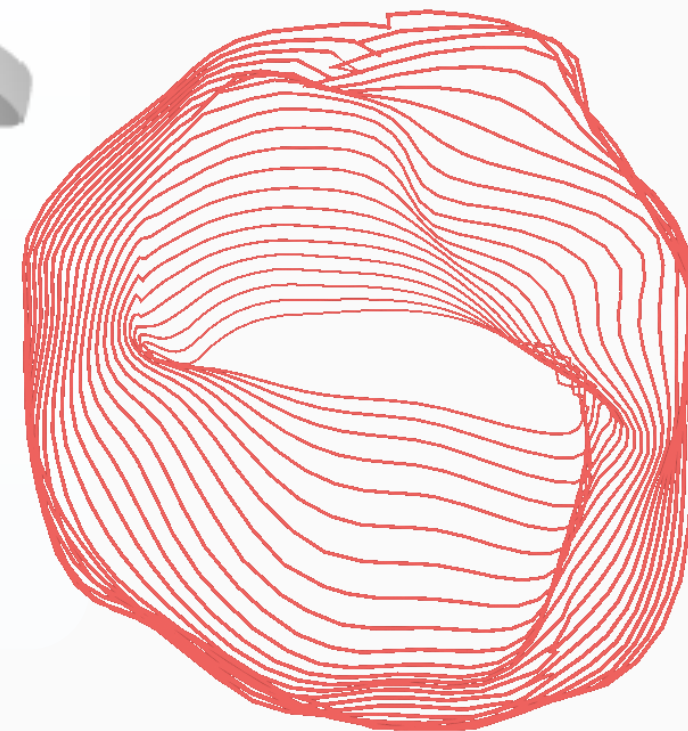
Various products can be created by petroleum, the most popular ones include:

1. Ethylene
2. Benzene
3. Medical Resins





4. Medical Plastics



Petroleum can create various plastics for medical industry such as medical syringes.

5. Food Preservatives



Petrochemicals can also create preservatives for foods, which prolongs the life of canned foods.





6. Cosmetics



Petrochemicals can also create products such as perfumes, makeup products, etc.



7. Fertilizers



Many fertilizers contain petrochemicals in their content, which helps them to grow certain plants or vegetables.



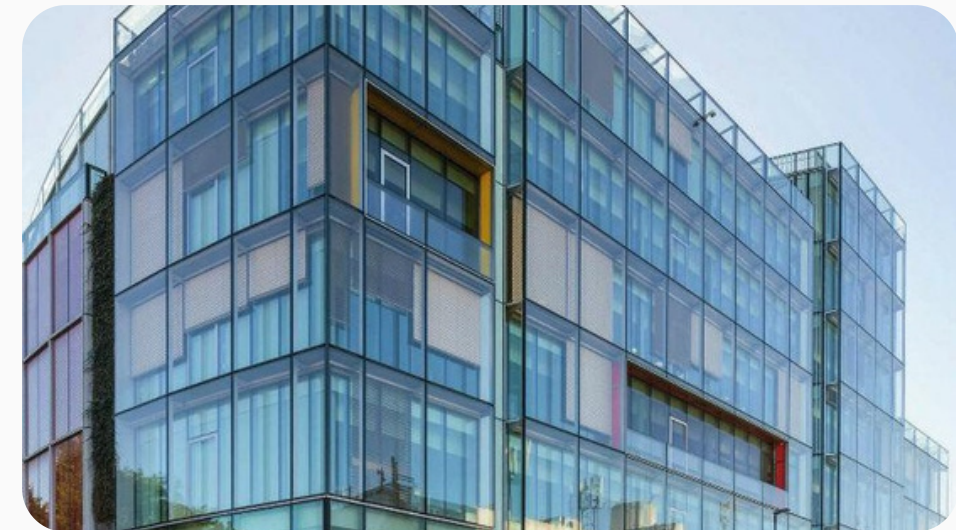


8. Carpets

Most of them are made of multiple petrochemical products, which adds color to the carpet & strengthen the fibers.

9. Safety glass

Its strength against strikes & thieves comes from petrochemicals.



10. Crayons & Markers

All kinds of crayons contain petrochemicals, which adds color to them & make them resistant to UV rays.

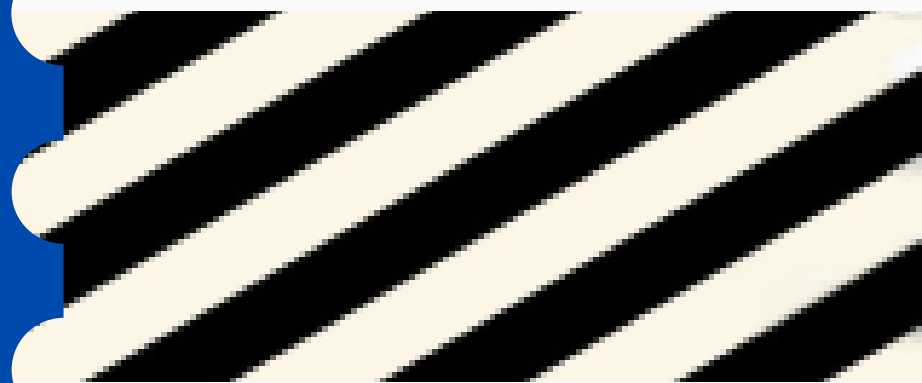






1. Crude Oil:

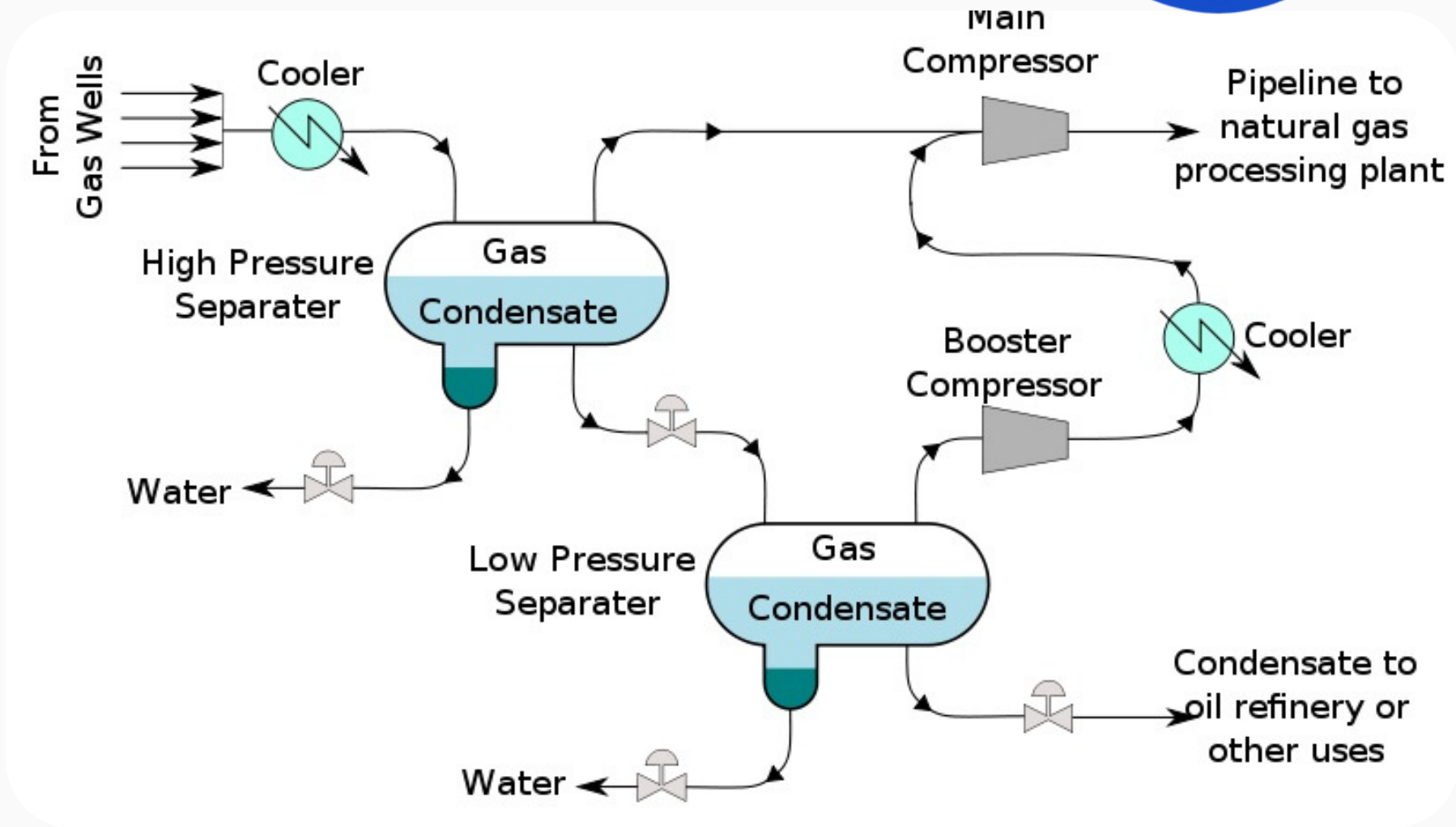
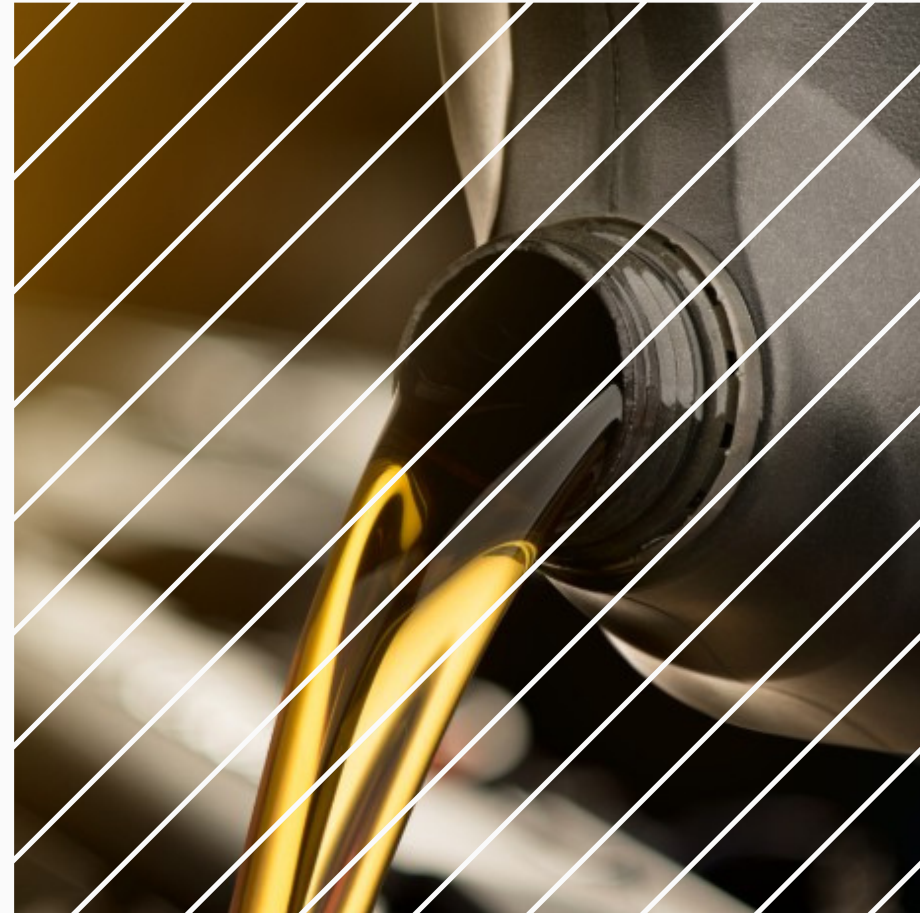
🔹 Light & Heavy





2. Petroleum Products:

- 1. Condensate
- 2. Gasoil





3. **Naphtha** (light & heavy): they're distinguished by their boiling points.

- **Light Naphtha**
- **Heavy Naphtha**





4. Fuel Oil (280 & 380 CST)



Fuel oil

Consisted of long hydrocarbon chains, specially aromatics, alkanes & Cycloalkanes. The term fuel oil also refers to the heaviest commercial fuel which can be derived from crude oil.



5. Gasoline



Refined petroleum used as fuel for internal combustion engines; petrol.



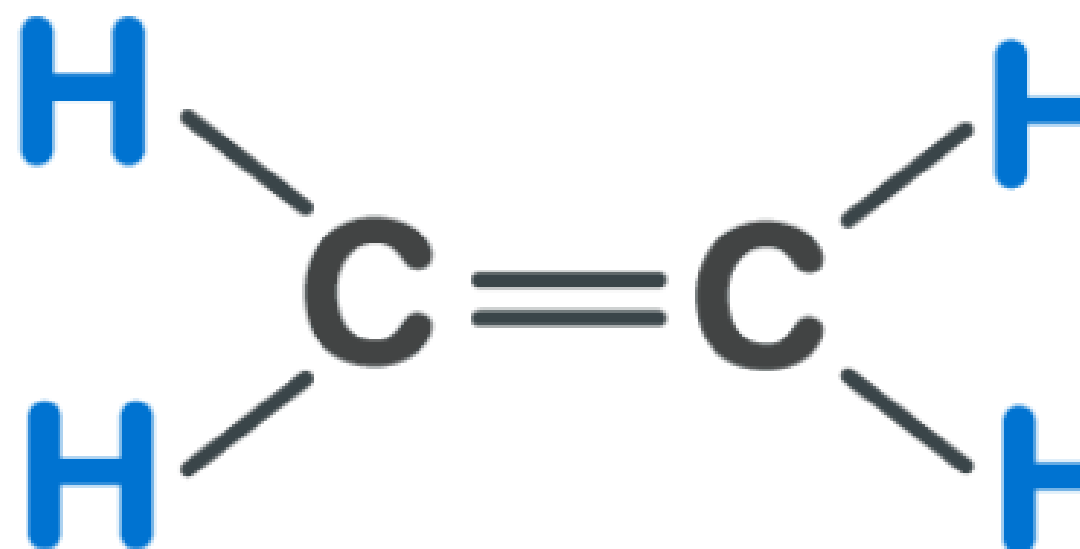


3. Petrochemical Products:

Ethylene

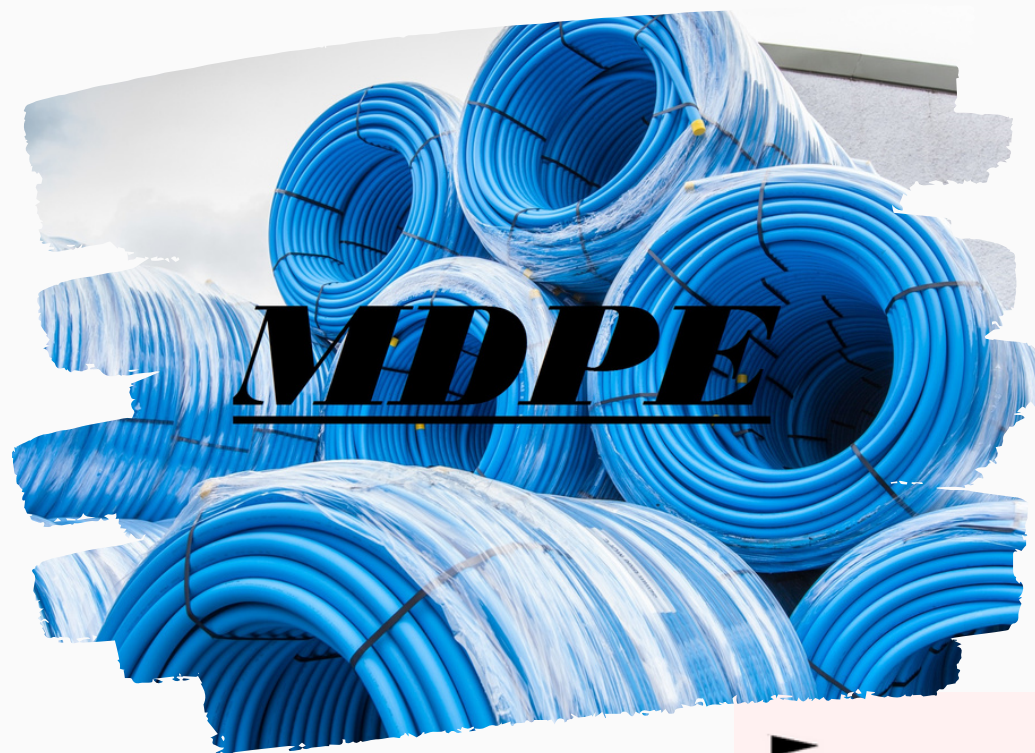


ETHYLENE STRUCTURE



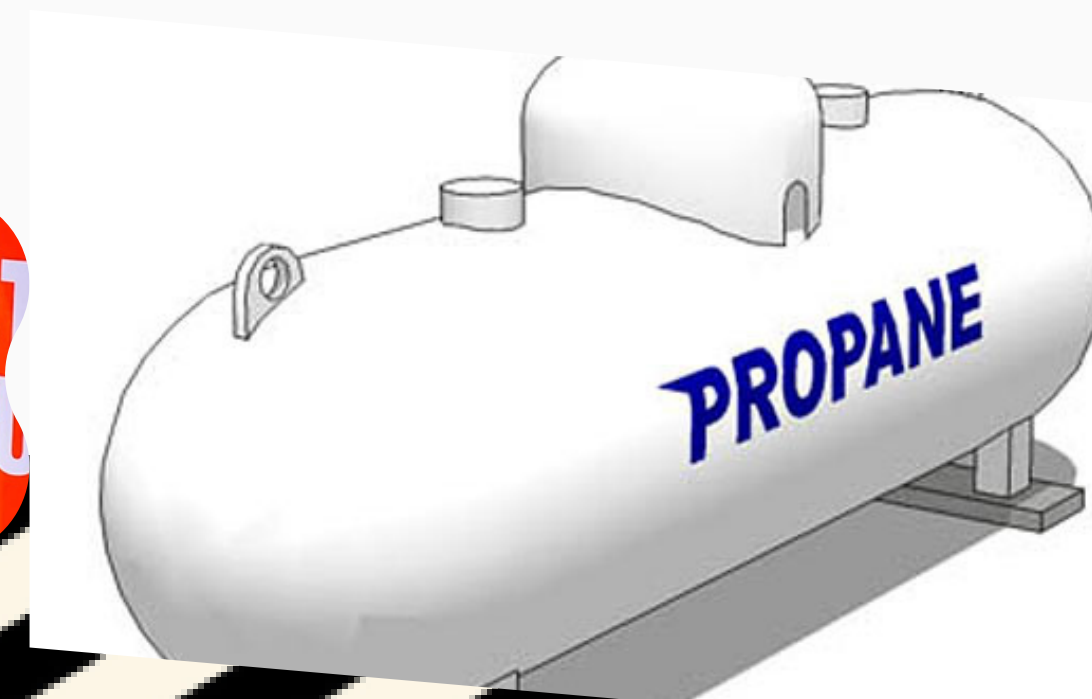
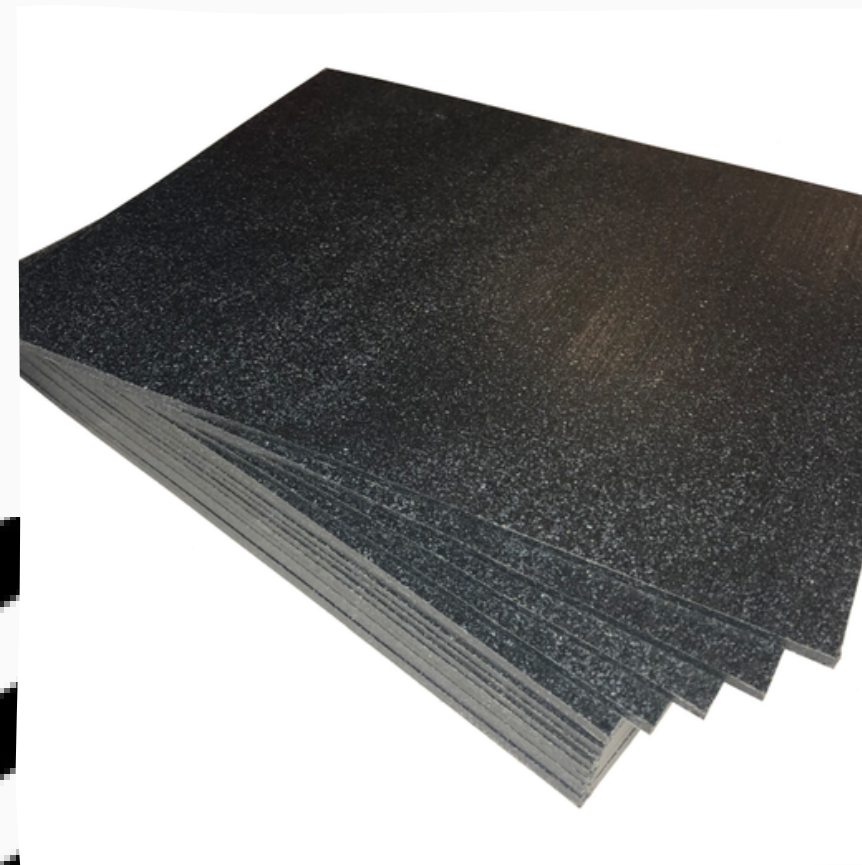
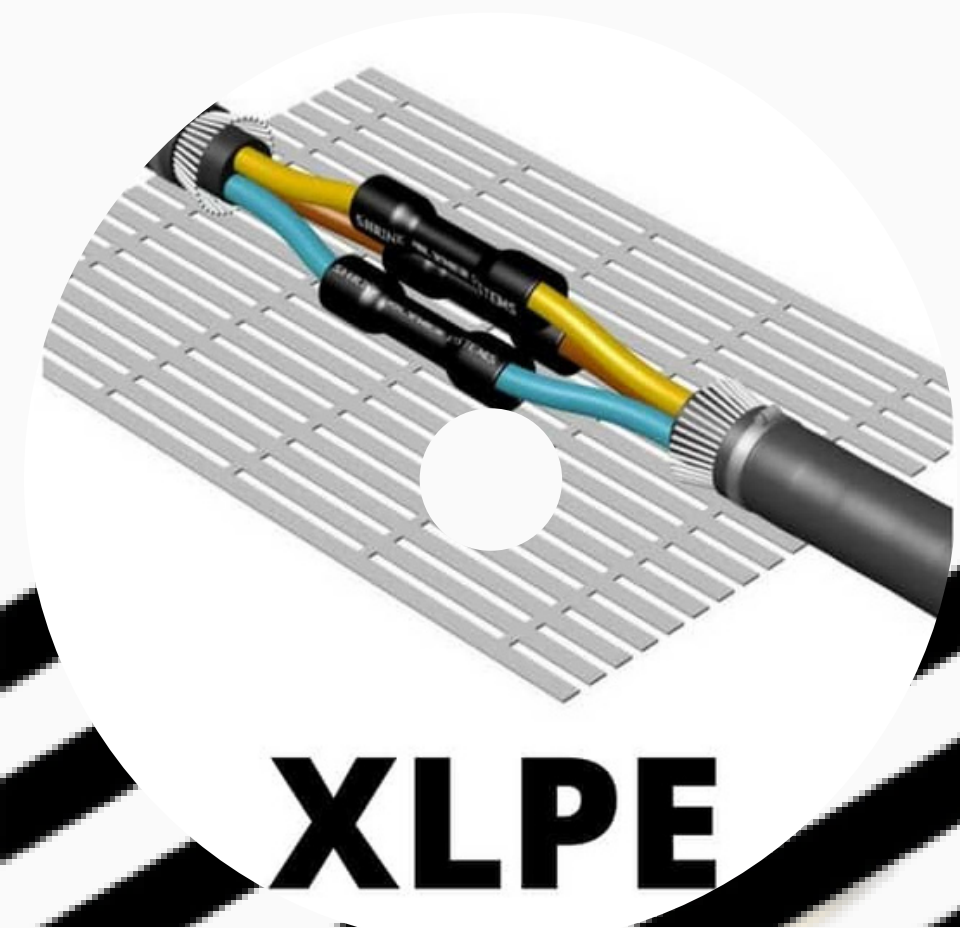


HDPE/LLDPE/MDPE/XLPE/UHMW
MDPE (Medium Density Polyethylene)





- 💧 **XLPE (Crosslinked Polyethylene)**
- 💧 **UHMW (ultra high molecular weight polyethylene)**
- 💧 **Butane/propane**





💧 **Polyethylene/Polypropylene/EVA/TPV/PVC/PS/EPDM/Etc.:**

💧 **Polyethylene:** Three types of resins exist by density, which are LDPE, LLDPE & HDPE. LLDPE have higher alpha-olefin resins & POP/POE (plastomer/elastomer) & HDPE which has various specialty grades.



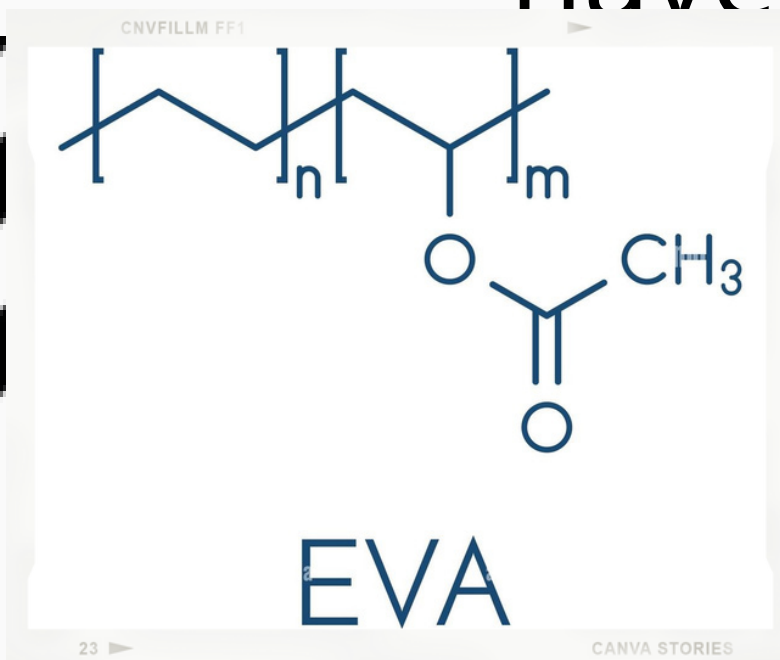


Polypropylene

It has molecular structure, homopolymer, impact copolymer & random Co (Ter)-polymer. Must manufacturer use the mentioned grades for cost competitiveness.

EVA (Ethylene Vinyl-Acetate Monomer)

There are various spectrum of the product's by VA contents, & we have enormous supply pool of this product.





TPV (Thermo-Plastic Vulcanization)

a dynamically cured thermoplastic elastomer (TPE) which is a mixture of thermal, mechanical & chemical properties expected of conventional thermoset rubber.

PVC (poly vinyl chloride)

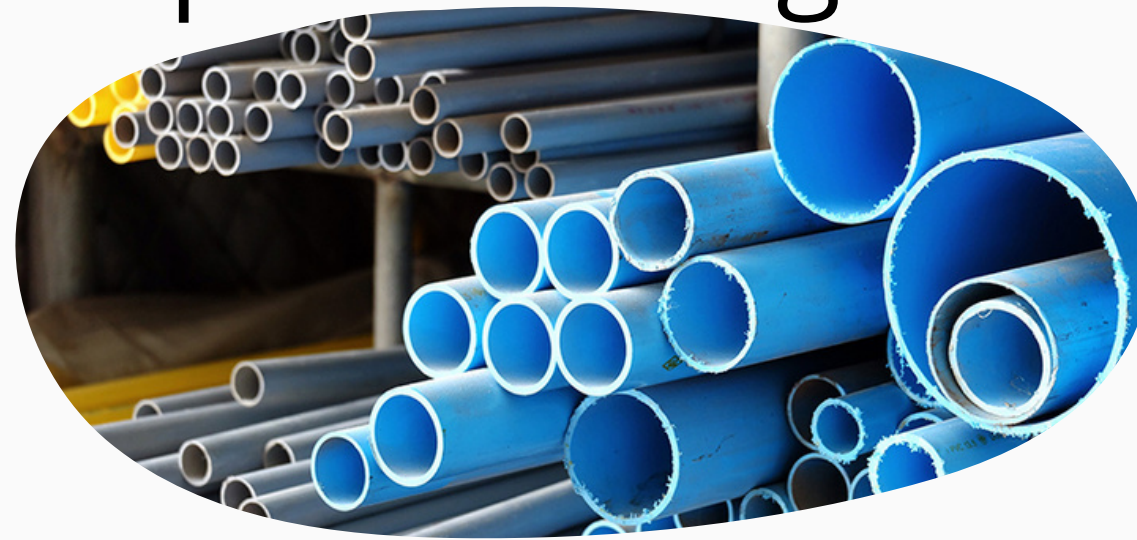
it has two types, straight resin & Paste resin. The first one is produced in common process, while the latter is used as an ingredient for a variety of processed goods.

TPV Applications

1. Automotive

2. Building & Construction

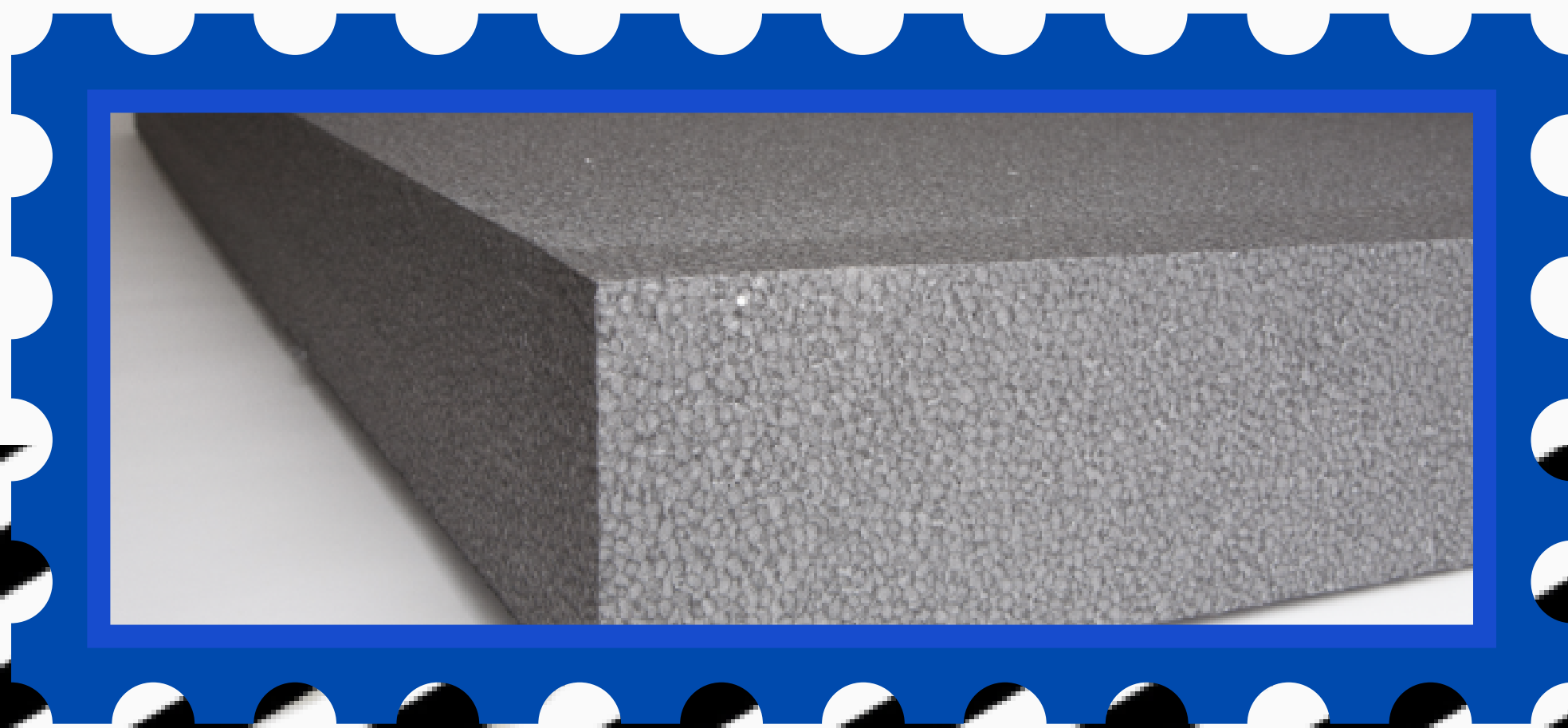
3. Appliances





💧 **PS/EPS (polystyrene/expandable polystyrene)**

It has various products such as GPPS, HIPS, EPS, High Performance PS, PS Compounds, & Energy Saving EPS.





🔹 EPDM (Ethylene Propylene Dien Monomer)

🔹 Ammonia

🔹 Urea





 **Methanol**

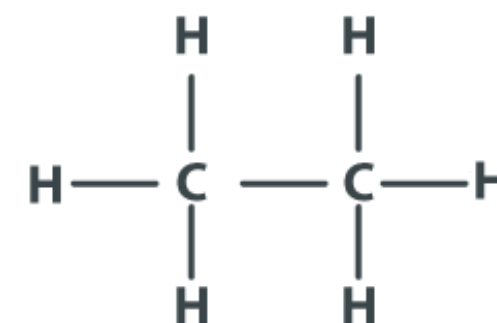
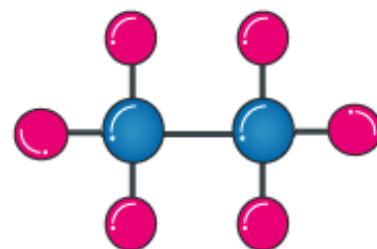
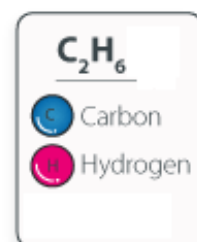


 **Sulfur**



 **Ethane**

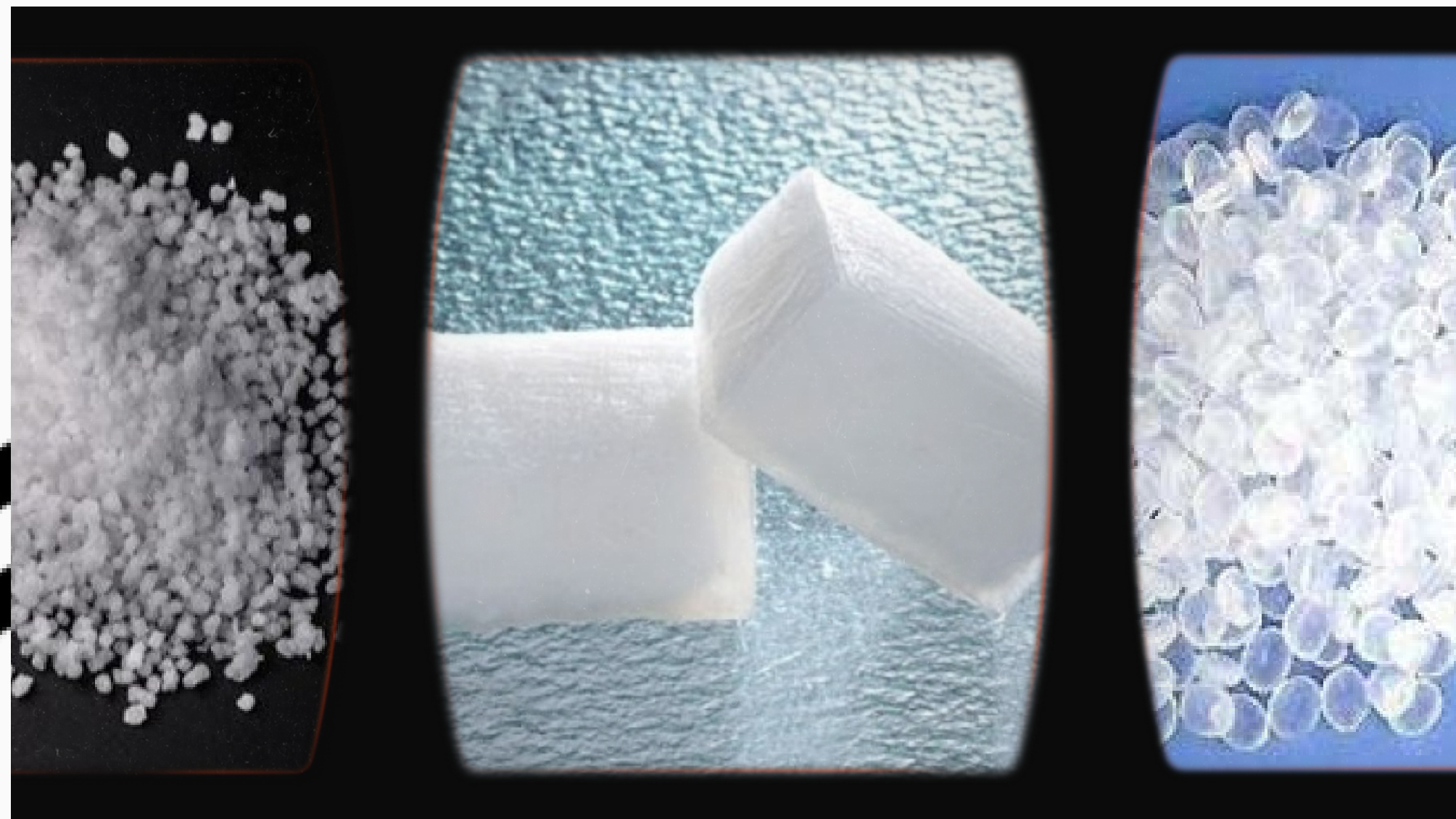
ETHANE STRUCTURE





SBS/SB/LCBR:

This unit is a batch plant based on polymers Europa tech, producing Butadiene/styrene block copolymers (SBS), low-cis Butadiene Rubber (LCBR) & Styrene/Butadiene Copolymers (SB) to be built.





Benzene

The simplest alcohol (CH_3OH) is a chemical material for hundreds of products such as plastics. It is also a clean energy resource for cars, boilers, etc.



Liquid fuel

Energy-generating molecules that can be restrained to create mechanical energy & they take shape of their container.



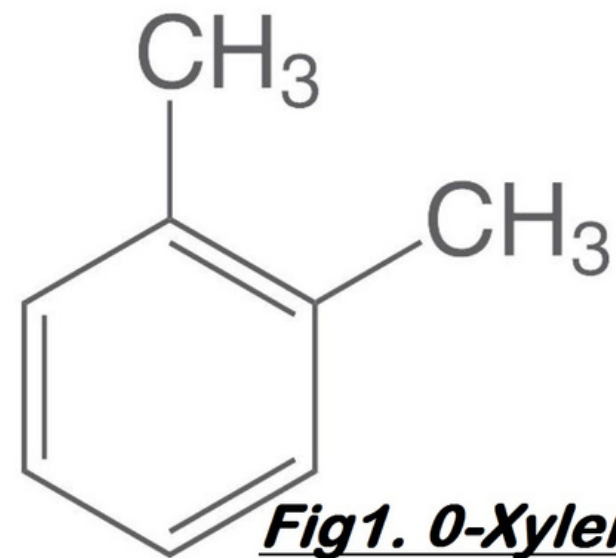


Fig1. O-Xylene

P-xylene/O-xylene

Two methyl groups are attached to benzene ring at opposite substitute positions in the first one & in the latter they're attached at adjacent substitute positions.

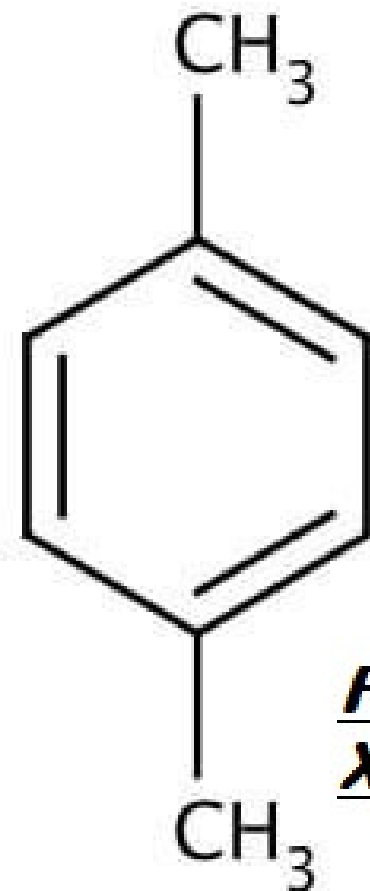


Fig 2. P-Xylene

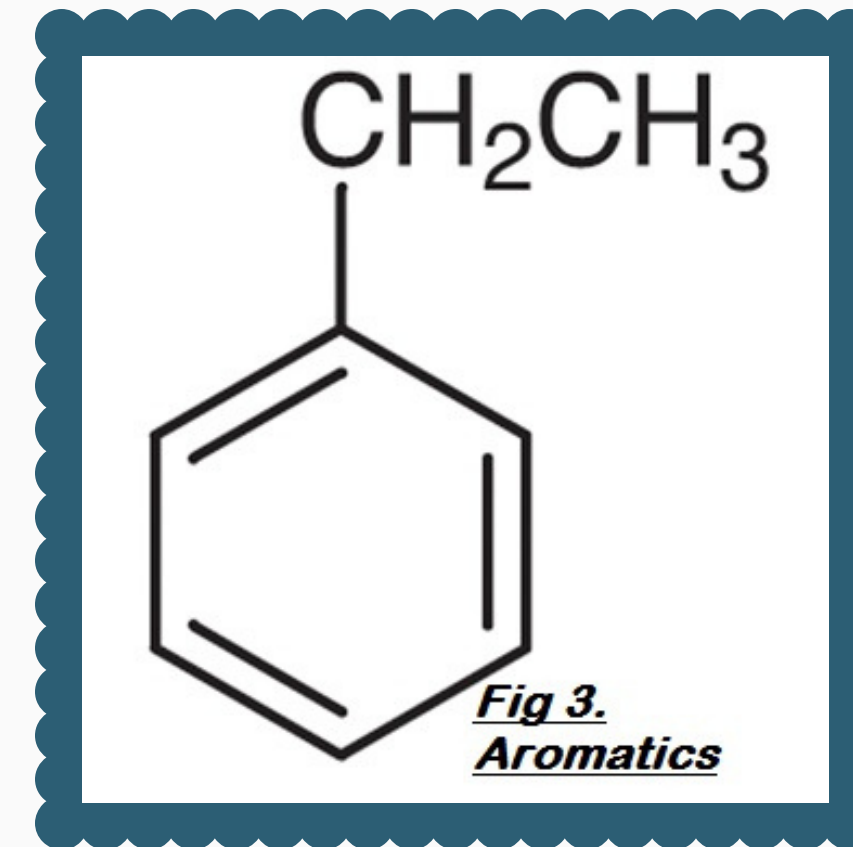


Fig 3. Aromatics

Aromatics/Ethyl benzene

Ethylbenzene is used as solvent & producing synthetic rubber & this aromatic hydrocarbon occurs in petroleum naturally.





Olefin/Propylene oxide

Usually, an intermediate in polyether polyols & propylene glycol for unsaturated polyester resins productions.



Butadiene/Raffinate

A chemical used in the manufacture of methyl tertiary butyl ether (MTBE) & diisobutylene (DIB).

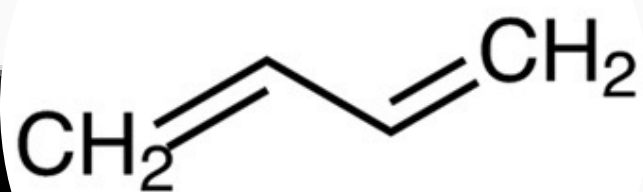


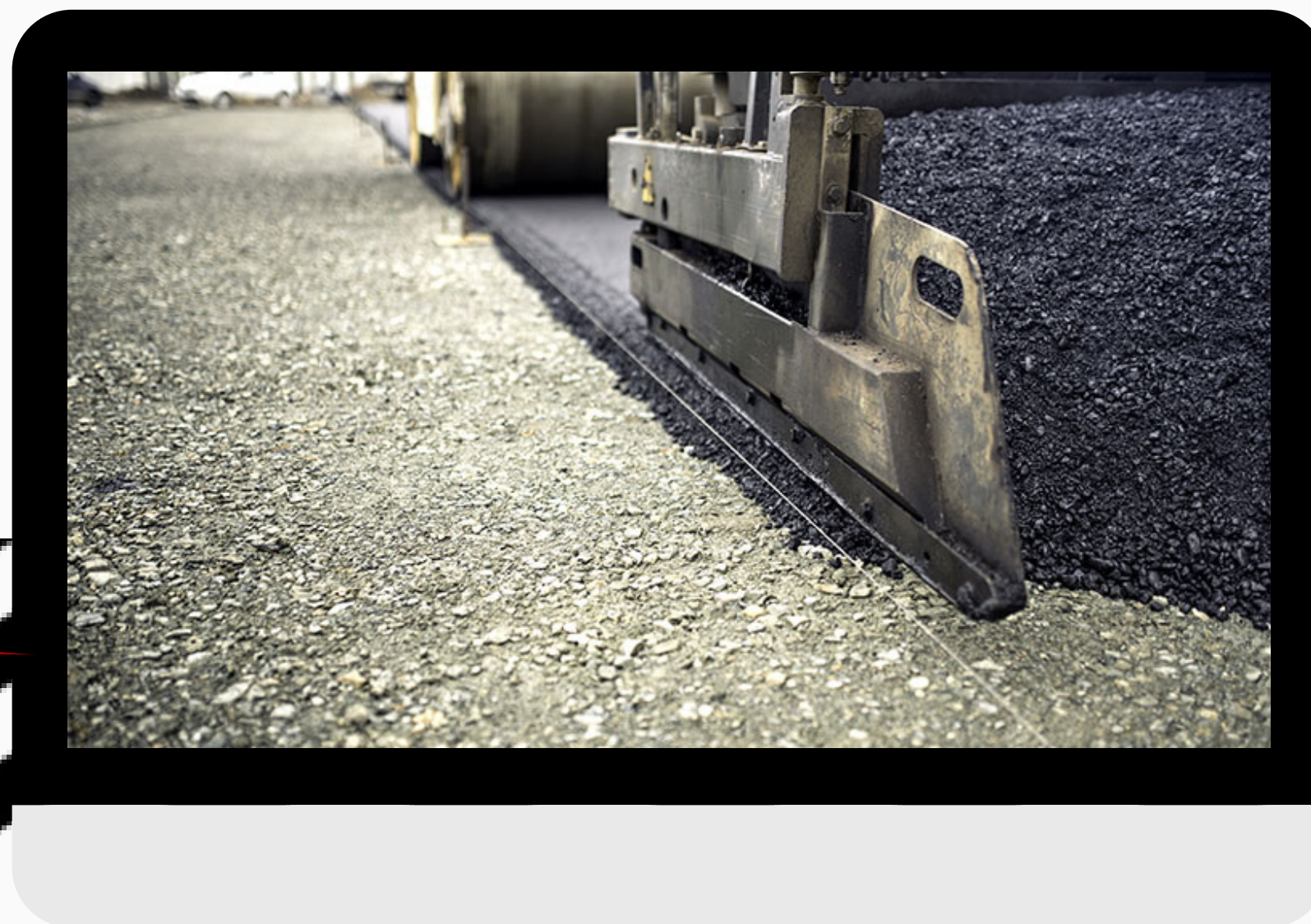
Fig. Butadiene





Bitumen

Usually for building highways, motorways & rail networks. Is extremely water-proof & widely utilized for making roofing products along with other applications.





THANK YOU

We look forward to working with you

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