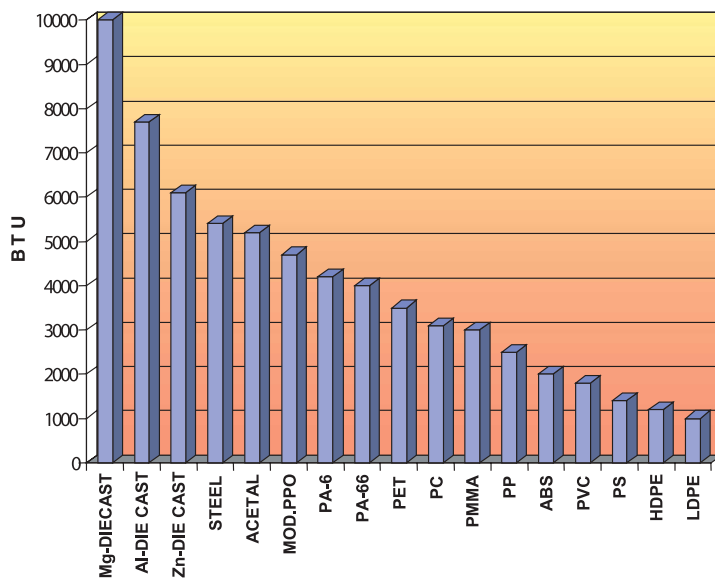


Energy Requirement of Various Materials



In fact, plastics consume less energy for conversion compared to many other materials (Graph).

Lesser consumption of energy means lesser requirement of electricity or other energy resources most of which pollute the environment.

Imbalance in carbon dioxide generation, which is the major cause of global warming-up is caused by many reasons. Contribution of plastics in causing imbalance in carbon dioxide generation is negligible.

DEPLETION OF OZONE LAYER

There are certain chemicals which have been identified as Ozone Depleting Substances (ODS's). They cause depletion of Ozone layer. CFC (Chloro Fluoro Carbon) is one of them. CFC-11 is used as blowing agent in certain plastics to give foamy structure. Hydro carbons, specifically cyclopentane is reported to have replaced CFC-11 blowing agent. Other ODS substances are Halons, Carbon, Tetrachloride (CTC) and Methyl Chloroform (MCF). These do not find applications in the manufacture of commodity plastics.

STORAGE & TRANSPORTATION

Storage and Transportation of plastics products do not create any environmental pollution.

In fact, transportation of various products in plastics containers/packages save enormous amounts of fuel due to the very low density of plastics materials.

The positive contributions of plastics in maintaining the ecological balance are many:

One MT of plastics product replaces the wooden products derived out of 5 matured trees. Considering at

least 10 years for a tree to mature (which is much more in case of many trees) we may analyse the benefit we derive by using plastics for manufacturing furniture/building materials, packaging materials, etc.

Afforestation is a prime factor for preserving the earth's environment. Plastic nursery bags help in the social forestry programme.

Geo textiles, plastic films help in restricting soil erosion and water seepage in canals and other areas.

Plastics mulching increases agricultural production. Plastics drip laterals are employed for proper water management and to achieve higher agricultural yield. Green Houses made of plastics films enable agricultural products to be grown in places where otherwise it is not possible.

CONCLUSION

In conclusion it is clear that plastics protect the environment by conserving precious natural resources and energy. While policy makers in the Government have already taken decisions to use plastics in various applications, more such decisions may be taken to make use of plastics mandatory in areas where it replaces wood and other natural resources and where it prevents use of many environmentally hazardous substances.

Plastics in Packaging

One of plastic's largest contribution to the packaging industry is its ability to be made into very thin films and containers. In fact, packagers are increasingly substituting plastics for alternative packaging materials because they can achieve significant reductions in packaging weight, volume and cost for the same amount of product delivered.



The environmental impact would be severe if other materials were substituted for plastics in packaging. It has been estimated that the volume of packaging waste would increase over 250%, the weight of packaging waste would increase over 400%, energy consumption would increase over 200% and overall packaging costs would increase 210%.

Source: www.plasticsrecycling.ab.ca