

# THERMOSETTING PLASTICS

THESE ARE PLASTICS THAT ONCE HEATED AND MOULDED, CANNOT BE REHEATED AND REMOULDED. THE MOLECULES OF THESE PLASTICS ARE CROSS LINKED IN THREE DIMENSIONS AND THIS IS WHY THEY CANNOT BE RESHAPED OR RECYCLED. THE BOND BETWEEN THE MOLECULES IS VERY STRONG.

UREA  
FORMALDEHYDE

SOME ADHESIVES  
(GLUES)

POLYESTER  
RESINS

POLYURETHANE

SILICONE

MELAMINE  
FORMALDEHYDE

BAKELITE

MELAMINE  
RESIN

DUROPLAST



For detailed information and worksheets on plastics go to:  
[http://www.technologystudent.com/despro\\_fish/materials\\_main1.html](http://www.technologystudent.com/despro_fish/materials_main1.html)  
 OR  
<http://www.technologystudent.com/joints/joindex.htm>

# THERMOPLASTICS

THESE PLASTICS CAN BE RE-HEATED AND RE-SHAPED IN VARIOUS WAYS. THEY BECOME MOULDABLE AFTER REHEATING AS THEY DO NOT UNDERGO SIGNIFICANT CHEMICAL CHANGE. REHEATING AND SHAPING CAN BE REPEATED. THE BOND BETWEEN THE MOLECULES IS WEAK AND BECOMES WEAKER WHEN REHEATED, ALLOWING RESHAPING. THESE TYPES OF PLASTICS CAN BE RECYCLED.

ACRYLIC  
(KNOWN ALSO AS PERSPEX)

POLYPROPYLENE  
(PP)

NYLON

POLYVINYL CHLORIDE  
(PVC)

LOW DENSITY POLYTHENE  
(LDPE)

POLYSTYRENE

HIGH IMPACT POLYSTYRENE  
(HIPS)

TEFLON

