



## **POPULAR MATERIALS FOR THERMOFORMING APPLICATIONS**

### **ABS:**

Acrylonitrile-Butadiene-Styrene is a low cost thermoplastic material with great impact resistance, easy to machine to close tolerances and thermoforming characteristics. There are flame retardant grades available and the material comes in a wide variety of colored caps, films and textures. Common applications include Cab Roofs, Cosmetic side panels and Covers, as well as interior components.

### **HMWPE:**

High Molecular Weight High Density Polyethylene is a light-weight material that has superior environmental stress crack resistance, with high impact strength and rigidity. It has outstanding chemical resistance and low temperature strength. Common applications include fenders, deflectors and shields.

### **TPO:**

Thermoplastic Polyolefin is a light-weight material that can be thermoformed. This material does not degrade under solar UV, it is easy to recycle and it comes in a variety of colors, including a gloss finish, if desired. This material is resistant to permanent deformation and corrosion. TPO material has excellent impact characteristics over a large temperature range, especially low temperature impact. Common applications include fenders, shields, skirts and fairings.

#### **Note about TPO and UV:**

This material is available in monolayer UV resistant materials, but bright and light colors can be a challenge. Fading and whitening of bright and light colored TPO material can lead to quality and warranty issues. There are specific cap layers for TPO that can offer the best UV characteristics.