



# Soft Flex ABS

*An environmentally conscious, cost competitive option to vinyl-wrapped ABS.*

## Key Properties of Soft Flex ABS

- » **100% recyclable.**  
*The trim scrap generated as a by-product of the routing process can be reclaimed and utilized in the core layer of the product, if appropriate. The benefit is cost savings to you and a "greener" earth for all of us. Compliance with environmental standards. RoHS compliant with no heavy metals.*
- » **Economical.**  
*Eliminates the need for adhesives and expensive labor costs associated with two-step process.*
- » **Easy to thermoform.**  
*Soft Touch ABS allows for a broad processing window similar to standard ABS, and can be used for a variety of formed product applications.*
- » **Ease of Processing and Bondability.**  
*Soft Flex ABS bonds easily to other materials. Adhesion of layers without secondary operation.*
- » **Aesthetics.**  
*Soft, tactile feel. Textured, leather-like appearance. Custom color available. Low gloss appearance. No stress wrinkles or puckers.*
- » **UV Protected and Outdoor Weatherable.**  
*Designed for superior performance in interior and exterior applications.*



# Soft Flex ABS Materials Comparison

	Soft Flex ABS	Exultra™ TPO (Exclusively from PMC)	Vinyl-Wrapped ABS	TPU (Polyester & Polyethylene Based)	FRP	PVC Over Urethane Foam
Impact	High	Very High	Very High	High	Very High	Very High
Shrink	Very Low	Very Low	Limited	Limited	Very Low	Limited
Coefficient of Linear Expansion	Low	Very Low	Limited	Limited	Very Low	Limited
Ability to Custom Color	Yes	Yes (including metallics & pearlescents)	Yes	Yes	Yes	Yes
Chemical Resistance	High	Very High	High	Moderate	Very High	High
Durability*	Good	Excellent	Good	Good	Excellent	Good
UV Stability*	Yes	Yes	Yes	Yes	Yes	Yes
Weatherability*	Yes	Yes	Yes	Yes	Yes	Yes
Heat Deflection	High	Very High	High	High	Very High	High
Thermoformable	Excellent (broader processing windows)	Excellent (yields the best aesthetics)	Average	Limited	No	Limited
Ease of Processing (for thermoforming)	Single Step	Single Step	More Complex	More Complex	NA	More Complex
Tooling Cost	Low/Medium	Low/Medium	Medium	Low/Medium	High (complex)	Low/Medium
Receptive to Additives (Anti-Stat, Static Dissipative, Flame Retardant)	Yes	Yes	Yes	Yes	Yes	Yes
Recyclability	Very High	Very High	No	No	No	No
Specific Gravity	Low	Low	High	High	Very High	High
Environmental Concerns	No	No	Yes (PVC's heavy metal and chlorine content & plasticizer concerns)	Yes (plasticizer concerns)	Yes (fumes if open molded)	Yes (PVC's heavy metal and chlorine content & plasticizer concerns)
Delamination	No (melt bonded cap to core)	No (melt bonded cap to core)	Yes (plasticizer migration)	Yes (with other layers)	No	Yes (plasticizer migration)
Insulating Properties	Yes	Yes	Buzz, squeaks and rattles	Buzz, squeaks and rattles	Buzz, squeaks and rattles	Buzz, squeaks and rattles
Gloss Level	Low	Low	Increases as plasticizer blooms	Increases as plasticizer blooms	Low	Increases as plasticizer blooms

\* Exposure to Ultra-Violet rays and harsh weather conditions increases the chances of delamination of all compared products.

