

# INJECTION MOLDED SOFT SKIN

## FOR AUTOMOTIVE INTERIORS



The latest generation TPE polymer chemistry meets soft-touch haptics and vehicle weight savings while utilizing a preferred method of conversion: injection molding. Kraton™ Injection Molding Soft Skin (IMSS) technology enables the injection molding of large, thin-walled soft skin parts such as instrument panel skins as thin as 0.8mm. Kraton IMSS can be utilized on standard equipment and under normal processing conditions, utilizing both 1K and 2K processes.

The foundation of the IMSS product is the utilization of Kraton™ TPE technologies and product support from the Kraton technical team, the backbone of new innovation at Kraton. IMSS looks and feels great in applications such as instrument panels, trim panels and center consoles. It also supports environmentally responsible initiatives such as vehicle lightweighting and recyclability with the ability to reuse scrap and production trim waste.

### FEATURES

- New high melt flow (400+ MFI) Kraton SEBS based TPE polymer technology
- Lower density than incumbent materials
- Phthalate free<sup>1</sup> and low plasticizer content
- Superior abrasion resistance / durability
- Cold temperature flexibility
- Low fogging and improved VOC performance
- Enables soft touch haptics
- Consistent matte gloss and no visible weld lines on grained class "A" surfaces
- Injection moldable soft skin solution

(1) Based on our knowledge of the product composition and manufacturing process of our polymers, Phthalates are not intentionally added as part of the manufacturing process nor do we routinely analyze for these substances.

### BENEFITS

- Enables the ability to injection mold large, thin-walled parts
- Enables vehicle weight savings
- Improved aging performance
- Safer airbag deployment
- Improved interior air quality
- Improved perceived quality
- Meets OEM performance specification without the need for painting of the class "A" surface
- System level cost savings due to the preferred method of conversion and lower manufacturing infrastructure versus incumbent soft skin technologies

Properties	Method	Unit	Kraton™ IMSS TPE	PVC	TPO
Density	ASTM D792	(g/cm <sup>3</sup> )	0.9	1.2	0.95
Hardness	ASTM D2240	Shore A (10 sec)	75	70	87
Melt Flow Rate (190°C/2.16kg)	ASTM D1238	(g/10min)	105	--	--
Melt Flow Rate (230°C/2.16kg)	ASTM D1238	(g/10min)	> 400	--	--
Tensile Stress at Break	ASTM D412	(MPa)	8.5	10	12
Elongation at Break	ASTM D412	(%)	> 600	380	420
Tear Strength	ASTM D624	(kN/m)	47	33	81
Abrasion Resistance	CS10, 250 Cycle	(mg)	No Wear	No Wear	No Wear
Scuff Resistance	SAE J365, Knife A	(mg)	No Wear	No Wear	No Wear
Coefficient of Friction	ASTM D1894		0.20 - 0.40	0.85	0.30
Heat Aging	ISO 188	(1000hrs - 120°C)			
Tensile Stress at Break Change	ASTM D412	(%)	-14	+5	-10
Elongation at Break Change	ASTM D412	(%)	+5	+5	-26
Fogging	SAE J1756	(%)	95	80	--

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