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RIM MATERIAL RANGE AND SPECIFICATION.

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General Properties	Method		Value	Value	Value	Value	Value	Value	Value	Value
Resin		Biresin RG51 HS	RenPIM 5212 A/B	RenPIM 5213-1 A/B	RenPIM 5214 A/B	RenPIM 5215 A/B	RenPIM 5216 A/B	RenPIM 5217 A/B	RenPIM 5218 A/B	Alchemix PU3828
		High Impact	Pigmentable	Flame Retardent						
Key Benefits		Abrasion Resistant	High impact strength	UL 94V-0 High Impact High Temperature	High Temperature Pigmentable	High Temperature	Pigmentable High Impact Resistance	High Impact Resistance	High Impact	Good Impact Strength High Temperature
Simulating		PE/PP	HDPE		PP/ABS	PP/ABS	PP/ABS	PP/ABS	PP/ABS	PP
Colour		Amber	Beige/Off White	Caramel	Beige/Off White	Black	Beige	Black	Black	Beige/Black
Density	ISO 1183	1.15g/cm ³	1.2 g/cm ³	1.2g/cm ³	1.2g/cm ³	1.2 g/cm ³	1.2g/cm ³	1.2g/cm ³	1.2g/cm ³	1.06
Shore D Hardness	ISO 868	D65	55-65	78-83	75-80	75-80	75-80	75-80	75-85	82
E-Modulus	ISO 178	450 Mpa								
Flexural Strength	ISO 178	20 MPa	>20 MPa	>55 MPa	60-65 MPa	50-60 MPa	45-50 MPa	>55 MPa (Yield point)	60-70 MPa	52-56 Mpa
Tensile Strength	ISO 527	25MPa	15-25 MPa	35-40 MPa	30-50 MPa	30-40 MPa	30-35 MPa	35-40 MPa	40-45 MPa	37-40 Mpa
Elongation at break	ISO 527	150%	30-40%	8-12%	3-10%	5-15%	20-40%	8-18%	15-30%	5-10%
Heat distortion temperature	ISO 75B	65 °C	45°C	90°C	120°C	130-140°C	80°C	85-90°C	90-100°C	
Abrasion resistance	ISO 4649A	160 mm3								
Flexural Modulus	ISO 178		550-750 MPa	1300-1500 MPa	1550-2000 MPa	1000-1200 MPa	1100-1300 MPa	1100-1400 MPa	1800-2000 MPa	1100-1350 Mpa
Impact Strength	ISO 179		>70 kJ/m ²	27 kJ/m ²	>25 kJ/m ²	>40 kJ/m ²	>40 kJ/m ²	>70 kJ/m ²	>30 kJ/m ²	
Tg	DSC		82°C	99°C	130°C	136°C	90°C	98°C	92°C	184°C
Max Wall Thickness (mm)		4	4	3.1	4	4	5	5	4	8
Compressive Strength	ISO 604		18-30 MPa	40-55 MPa	75-90 MPa	70-80 MPa	30-40 MPa	35-50 Mpa	40-60 MPa	
Linear Shrinkage			0.10%	0.40%	0.30%	0.50%	0.65%	0.44%	0.65%	0.37%