Help me choose

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Help our customers decide which material is best for their application

	PA12	PA11	PA12 GB	PP	BASF TPU	LZ TPU	Vestosint	CB PA 12
Stiffness	Good	Good	Best	Fair	Not recommended	Not recommended	Good	Good
Impact resistance	Fair	Good	Not recommended	Fair	Best	Best	Good	Fair
Elongation	Fair	Good	Not recommended	Fair	Best	Best	Good	Fair
Dimensional capability	Best	Good	Good	Fair	Fair	Fair	Fair	Fair
Level of detail	Good	Best	Good	Fair	Fair	Fair	Fair	Good
Flat part	Good	Fair	Best	Not recommended	Fair	Fair	Good	Good
Temperature resistance	Fair	Not recommended	Good	Fair	Not recommended	Good	Fair	Fair
Chemical resistance	Good	Good	Good	Best	Fair	Fair	Good	Good
Low moisture absorption	Not recommended	Not recommended	Not recommended	Best	Not recommended	Fair	Not recommended	Not recommended
Lightweight	Good	Good	Fair	Best	Not recommended	Not recommended	Good	Good

- Best
- Good
- Fair
- Not recommended

HOW TO CHOOSE RIGID POLYMERS

	HP 3D HR PA12	HP 3D HR PA11	HP 3D HR PA12 GB	HP 3D HR PP
MATERIAL PROPERTIES	• Robust & strong • **Good balance** performance-Price • Good balance between tensile strength and elongation	• **Ductile**, flexible and with high strength • Higher Elongation & Impact • Raw material from vegetable castor oil • Better small, features	• High **stiffness** • Good dimensional stability – les warpage • Higher HDT	• Best chemical resistance • Low moisture absorption • Weldable • Flexibility is important but not essential
WORKFLOW	Between 30-40h of cooling, depending on machine and material			60h cooling
REUSABILITY (up to)	80%	70%	70%	90%
POST PROCESSING	Coating, dying & chemical etching		-	BASF UV precoating
COMPATIBILITY	4200 & 5200	4200 & 5200	4200 & 5200	5200

HOW TO CHOOSE ELASTOMERIC MATERIALS

	BASF Ultrasint TPU01	ESTANE 3D TPU M95A
MATERIAL PROPERTIES	• Best balance on rebound resilience and compression set • Better color uniformity • Better repeatability	• Harder TPU – 90 shore A & higher tear strength • **Print half buckets to improve degradation and repeatability** • Better performance at high temperatures
WORKFLOW	**Warm unpack**	Easy to unpack and clean
REUSABILITY (up to)	80%	80%
POST PROCESSING	Chemical etching, Spray coating	Chemical etching
COMPATIBILITY	5200	4200