

## MATERIAL COMPARISON CHART

25.10.2024 - Version 5.3

**Table 1: Technical Properties**

		TECHNICAL PROPERTIES										
		MFI 190°C/2.16 kg (g/10 min)	Flexural strain (%)	Tensile modulus (GPa)	Tensile Strain at yield (%)	HDT-B (°C)	Charpy impact strength (kJ/m <sup>2</sup> )	Material Density (g/cm <sup>3</sup> )	Shrinkage (%)	Mold Temperature (°C)	Recommended Minimum object thickness (mm)	Wood chip size
SULAPAC MATERIALS	SULAPAC PREMIUM	N.A	2	4,9	1,2	56	6	1,27	0,2	20 - 40	2	Large
	SULAPAC PREMIUM FLEX 40	N.A	2,1	4,4	1,4	56	7,8	1,27	0,2	20 - 40	2	Large
	SULAPAC UNIVERSAL	12	1,9	4,5	1,6	56	10	1,27	0,2	20 - 40	0,6 - 1	Small
	SULAPAC UNIVERSAL FLEX 30	12	2,7	3,0	2,7	56	12	1,27	0,3	20 - 40	0,6 - 1	Small
	SULAPAC UNIVERSAL FLEX 35	12	2,5	3,5	2,5	56	11	1,27	0,3	20 - 40	0,6	Small
	SULAPAC UNIVERSAL HEAT 30	7	2,9	3,3	2,7	95	8	1,41	0,2	20 - 40	0,6 - 1	Small
	SULAPAC SOLID 2.0	22	1,3	7,8	1,3	135	16	1,4	0,15	>100	0,5	None
	SULAPAC LUXE	14	3	3,2	2,8	54	16	1,27	0,36	20 - 40	0,6 - 1	Fine
	SULAPAC LUXE FLEX	31	6,5	2,3	30	53	19	1,27	0,36	20 - 40	0,6 - 1	None
	SULAPAC BARRIER	12	1,1	8,7	1,1	150	9	1,49	1,0	60 – 70	0,5 - 1	None
	SULAPAC FLOW 1.7	3	4,5	2,1	3	55	33	1,26	N.A	-	0,2	Fine
	SULAPAC FLOW 1.8	3	4,5	2,1	3	54	33	1,26	N.A	-	0,5	Fine

**Table 2: Verified Processing Methods**

		VERIFIED PROCESSNG METHODS					
		Injection Molding	Extrusion	Thermoforming	3D Printing		Recommended Minimum Object Thickness (mm)
					Granules	Filament	
SULAPAC MATERIALS	SULAPAC PREMIUM	✓					2
	SULAPAC PREMIUM FLEX 40	✓					2
	SULAPAC UNIVERSAL	✓					0,6 - 1
	SULAPAC UNIVERSAL FLEX 30	✓					0,6 - 1
	SULAPAC UNIVERSAL FLEX 35	✓					0,6
	SULAPAC UNIVERSAL HEAT 30	✓			✓		0,6 - 1
	SULAPAC SOLID 2.0	✓					0,5
	SULAPAC LUXE	✓					0,6 - 1
	SULAPAC LUXE FLEX	✓					0,6 - 1
	SULAPAC BARRIER	✓					0,5 - 1
	SULAPAC FLOW 1.7	✓	✓	✓	✓	✓	0,2
	SULAPAC FLOW 1.8		✓				0,5

**Table 3: Verified Applications**

		VERIFIED APPLICATIONS							
		Cosmetic Jars and Caps	Make-up	Supplement Packaging	Luxury Packaging	Kitchen Ware	Straw	Cutlery	Point of Sale Displays
SULAPAC MATERIALS	SULAPAC PREMIUM	✓		✓	✓				
	SULAPAC PREMIUM FLEX 40	✓			✓				
	SULAPAC UNIVERSAL	✓	✓	✓	✓			✓	
	SULAPAC UNIVERSAL FLEX 30							✓	
	SULAPAC UNIVERSAL FLEX 35	✓		✓	✓				
	SULAPAC UNIVERSAL HEAT 30							✓	
	SULAPAC SOLID 2.0	✓	✓		✓	✓			
	SULAPAC LUXE	✓	✓		✓				
	SULAPAC LUXE FLEX	✓	✓		✓				
	SULAPAC BARRIER	✓*		✓*					
	SULAPAC FLOW 1.7		✓				✓		✓
	SULAPAC FLOW 1.8		✓						

\* Inner layer of jar (2k jar or 4-part mold)

**Table 4: Key Features**

		KEY FEATURES					
		No Permanent Microplastics	Safe For People and The Planet	Sustainably Sourced	Mass Producing	Industrially Compostable	Bio-Based %
SULAPAC MATERIALS	SULAPAC PREMIUM	✓	✓	✓	✓	✓	100 %
	SULAPAC PREMIUM FLEX 40	✓	✓	✓	✓	✓	87 %
	SULAPAC UNIVERSAL	✓	✓	✓	✓	✓	100 %
	SULAPAC UNIVERSAL FLEX 30	✓	✓	✓	✓	✓	79 %
	SULAPAC UNIVERSAL FLEX 35	✓	✓	✓	✓	✓	87 %
	SULAPAC UNIVERSAL HEAT 30	✓	✓	✓	✓	✓	70 %
	SULAPAC SOLID 2.0	✓	✓	✓	✓	✓	100 %
	SULAPAC LUXE	✓	✓	✓	✓	✓	87 %
	SULAPAC LUXE FLEX	✓	✓	✓	✓	✓	86 %
	SULAPAC BARRIER	✓	✓	✓	✓	✓	98 %
	SULAPAC FLOW 1.7	✓	✓	✓	✓	✓	72 %
	SULAPAC FLOW 1.8	✓	✓	✓	✓	✓	72 %

**Table 5: Material Certificates**

		MATERIAL CERTIFICATES						
		Industrial Compostability			Bio-Based %	Non-GMO*	Wood	
		Self-Declaration	BPI ASTM D6400	Seedling EN 13432 / ASTM D6400	OK Compost Industrial EN 13432	BioPreferred ASTM D6866	Self-Declaration	FSC Mix <u>INS-COC-100087</u>
SULAPAC MATERIALS	SULAPAC PREMIUM		✓			100 %	✓	✓
	SULAPAC PREMIUM FLEX 40		✓			87 %	✓	✓
	SULAPAC UNIVERSAL		✓			100 %	✓	
	SULAPAC UNIVERSAL FLEX 30		✓	✓		79 %	✓	
	SULAPAC UNIVERSAL FLEX 35		✓			87 %	✓	
	SULAPAC UNIVERSAL HEAT 30		✓			70 %		
	SULAPAC SOLID 2.0		✓			100 %	✓	
	SULAPAC LUXE	✓				87 %	**	✓
	SULAPAC LUXE FLEX				✓	86 %	**	
	SULAPAC BARRIER		✓			98 %	✓	
	SULAPAC FLOW 1.7		✓	✓		72 %	✓	
	SULAPAC FLOW 1.8		✓	✓		72 %	✓	✓

\* Virgin raw materials confirmed as non-GMO by manufacturers

\*\* Non-GMO version available upon request