

Luran S Commercial products				Global					Regional										
				BASF Version 1 (11/2003)					ASA			ASA		ASA-GF	ASA + PC				
				777 K	778 T / TE	797 S / SE	757 G	776 S / SE	757 R	796 M	KR2858G3	KR2861/1C	KR2863C	KR2864C	KR2866C	KR2867C WU			
Typical values at 23°C for uncoloured products	Unit	Test method	Specimens (mm)																
Melt volume rate MVR 220/10	cm³/10 min	ISO 1133	moulding comp.	15	5	5.5	25	4	8	9	5	3.5	7	10	5	25			
Vicat softening temperature VST/B/50	°C	ISO 306	≥10 * ≥10 * 4	97	104	90	97	92	98	90	115	120	130	120	110	105			
<b>Mechanical properties</b>																			
Tensile modulus	MPa	ISO 527-2	acc. to ISO 316	2300	2500	2000	2400	2200	2600	2000	6600	2300	2500	2600	2600	2600			
Yield stress (v = 50 mm/min), Stress at break * (v = 5 mm/min)	MPa	ISO 527-2	acc. to ISO 316	48	54	42	51	47	56	41	110 *	53	62	63	60	61			
Tensile creep modulus, 1000 h, strain ≤ 0.5%, +23°C	MPa	ISO 899-1	acc. to ISO 316	1400	1250	1100	1650	1200	1400			1600							
Flexural strength	MPa	ISO 178	80 * 10 * 4	70	80	60	75	65	80	60	140	78	93	100	90	90			
Charpy impact strength +23°C	kJ/m²	ISO 179/1eU	80 * 10 * 4	250	250	250	190	270	200	250	28	NB	NB	NB	NB	NB			
Charpy impact strength -30°C	kJ/m²	ISO 179/1eU	80 * 10 * 4	90	90	180	80	150	70	150	17	NB	NB	NB	160	NB			
Charpy notched impact strength +23°C	kJ/m²	ISO 179/1eA	80 * 10 * 4	17	15	40	12	30	12	30	7	60	60	70	35	16			
Charpy notched impact strength -30°C	kJ/m²	ISO 179/1eA	80 * 10 * 4	4	4	9	3	3	3	5	6	20	17	11	5	9			
Ball indentation hardness H 358/30	MPa	ISO 2039-1	≥10 * ≥10 * 4	80	85	65	90	70	100	65	170	95	110	110	110	120			
Izod notched impact strength, method A +23°C	J/m	ASTM D 256	63.5 * 12.7 * 3.2	180	250	600	110	285	80	600		600	700	700		150			
<b>Thermal properties</b>																			
Heat deflection temp. under 1.8 MPa load (HDT A)	°C	ISO 75-2	110 * 10 * 4	97	103	95	96	96	97	95	110	106	109	105	102	96			
Heat deflection temp. under 0.45 MPa load (HDT B)	°C	ISO 75-2	110 * 10 * 4	101	106	100	101	101	101	100	115	125	130	124	113	100			
Vicat softening temperature VST/A/50	°C	ISO 306	≥10 * ≥10 * 4	105	113	104	105	104	105	104	120	136	140	134	110	110			
Max. service temperature (short cycle operation)	°C	-		85	90	80	85	80	85	80	90	110	115	105	100	90			
Thermal coefficient of linear expansion, longitudinal (23-80)°C	10 <sup>-4</sup> /K	DIN 53 752	≥10 * ≥10 * 4	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.3	0.7-0.9	0.7-0.9	0.7-0.9	0.8-1.0	0.65-0.85			
Thermal conductivity	W/(mK)	DIN 52 612	260 * 260 * 10	0.17	0.17	0.17	0.17	0.17	0.17	0.17		0.17	0.17	0.17	0.17	0.19			
<b>Electrical properties</b>																			
Dielectric constant at 100 Hz/1 MHz	-	IEC 60250	80 * 80 * 1	3.7/3.4	3.9/3.5	3.8/3.3	3.4/3.2	3.8/3.4	3.7/3.4	3.8/3.3		3.4/3.2	3.1/3.0	3.1/3.0		3.1/3.0			
Dissipation factor at 100 Hz/1 MHz	10 <sup>-4</sup>	IEC 60250	80 * 80 * 1	110/240	90/330	90/260	100/250	90/340	90/250	100/250		60/150	60/100	60/120		60/100			
Volume resistivity	Ω * m	IEC 60093	80 * 80 * 1	10 <sup>12</sup>	10 <sup>12</sup>	10 <sup>12</sup>	10 <sup>12</sup>	10 <sup>12</sup>	10 <sup>12</sup>	10 <sup>12</sup>		10 <sup>12</sup>	10 <sup>13</sup>	10 <sup>12</sup>	10 <sup>12</sup>	10 <sup>13</sup>			
Surface resistivity	Ω	IEC 60093	80 * 80 * 1	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>13</sup>		10 <sup>13</sup>	1014	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>14</sup>			
Dielectric strength K20/K20	kV/mm	IEC 60243/1	h = (0.6 - 0.8)	35	35	35	35	35	35	35		38	38	38	38	50			
Comparative tracking index CTI, test solution A	-	IEC 60112	≥15 * ≥15 * 4	600	600	600	600	600	600	600		225	225	225	225	250			
<b>Fire behaviour</b>																			
Flammability according to UL 94 Standard at h = 1.6 mm	class	UL 94	127 * 12.7 * d	HB	HB	HB	HB	HB	HB	HB	HB	HB	HB	HB	HB	V-0			
Automotive materials (thickness d ≥ 1 mm)	FMVSS 302	-	355 * 100 * d	+	+	+	+	+	+	+		+	+	+	+	+			
<b>Processing</b>																			
Injection moulding (M), Extrusion (E), Blow moulding (B)				M	M / E	M / EB	M	M / EB	M	M	M	M,E	M,E	M	M	M			
Pre - drying: temperature / time	°C/h			80 / 2-4	80 / 2-4	80 / 2-4	80/2-4	80/2-4	80/2-4	80/2-4	80/2-4	100-110/2-4	100-110/2-4	100-110/2-4	100/2-4	85-95/2-4			
Melt volume rate MVR 200/21.6	cm³/10 min	ISO 1133	moulding comp.																
Melt temperature range, injection moulding	°C	-	-	240-280	240-280/	240-280/	240-280	240-280/	240-280	240-280	240-280	260-300	260-300	260-300	260-300	260-280			
Mould temperature range	°C	-	-	40-80	40-80/	40-80/	40-80	40-80/	40-80	40-80	80-95	60-90	60-90	60-90	40-80	40-60			
Moulding shrinkage, free	%	-	110 * 110 * 2	0.40-0.70	0.40-0.70/	0.40-0.70/	0.40-0.70	0.40-0.70/	0.40-0.70	0.40-0.70	0.40	0.30-0.70	0.30-0.70	0.30-0.70	0.30-0.70	0.30-0.70			
Melt temperature range, pipe extrusion	°C	-	-		/200-240	/200-240		/200-240											
Melt temperature range, sheet extrusion	°C	-	-		/230-270	/230-270		/230-270				250-280	250-280						
Melt temperature range, blow moulding	°C	-	-			/210-230		/210-230											
Density	g/cm³	ISO 1183	-	1.070	1.070	1.070	1.070	1.070	1.070	1.070	1.180	1.150	1.160	1.150	1.110	1.190			
Water absorption, 24 h at 23 °C	%	DIN 53 495/1	50 Ø x 3	0.45	0.45	0.45	0.45	0.45	0.45	0.45		0.30	0.20	0.25	0.30	0.40			
Moisture absorption, equilibrium 23°C/50% r.h.	%		80 Ø x 3	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.30	0.25	0.16	0.18	0.25	0.15			