### **Product selection guide**

# Caps, closures and tubes - Polypropylene



Properties	Phy	sical			N	/lechani	cal			Thermal		Optical		Peculiarities Typical Applications	Special Additives NU = Nucleated
	Density 23°C	MFR 230°C, 2,16kg	Tensile Modulus	Tensile Stress at Yield	Tensile Elong. at Yield	Charpy notched impact strength  23 °C 0 °C -20 °C			Ball indentation hardness (H358/30)	Vicat Softening Temp.	Heat Deflect. Temp. HDT/B	Haze 1mm	Gloss at 60°		
Test Method	ISO 1183	ISO 1133	ISO 527	ISO 527	ISO 527		ISO 179		ISO 2039-1	ISO 306/A50	ISO 75-2				AS = Antistatic SA = Slip Agent AB - Anti Block
Units	g/cm³	g/10 min	MPa	MPa	%		kJ/m²		MPa	oC.	oC.	%	%		
РР НОМО															
Moplen HP501H	0,9	2,1	1450	33	9	8,0	-	-	72	154	90	-	-	Good stiffness / impact balance at ambient temperature; Hinged closures	-
Moplen PP645H	0,9	2,2	1700	35	8	10,0	-	-	78	154	105	-	-	Good stiffness / impact balance at ambient temperature; Hinged closures	NU, AS, SA
Moplen HP501L	0,9	6	1500	34	9	4,5	-	-	74	154	90	-	-	Good stiffness / impact balance at ambient temperature; Closures, pumps	-
Moplen HP548N	0,9	11	1800	36	9	4,0	-	-	71	154	105	-	-	Good stiffness / flowability balance; Hinged and Screw Closures	NU, AS
Purell HP570P	0,9	16	1400	33	11	3,0	-	-	74	154	85	-	-	Good stiffness and high flowability; Low Warpage; Hinged and Screw Closures	-
Moplen HP548R	0,9	23	1600	35	8	2.7	-	-	-	154	95	-	-	Good stiffness and high flowability; Hinged and Screw Closures	NU, AS
Moplen HP483R	0,9	27	1300	32	9	3,0	-	-	68	151	80	-	-	Good stiffness and high flowability, low opening torque; Closures, pumps	AS, SA
Moplen HP648T	0,9	53	1600	35	8	2,0	-	-	80	154	95	-	-	High fluidity and stiffness; Closures, pumps	NU, AS
PP HECO															
Moplen EP445L	0,9	6	1500	30	7	8,5	4,5	3,5	64	151	100	-	-	Good stiffness / impact balance at ambient temperature; Hinged closures	NU, AS, SA
Moplen EP540N	0,9	12	1400	27	5	8,5	5	4	-	151	100	-	-	Good stiffness / Good impact resistance; Caps & Closures	NU
Moplen EP548P	0,9	16	1450	28	7	8,0	6,0	3,0	69	147	100	-	-	Good stiffness / impact balance at ambient temperature; Closures, pumps	NU, AS
Moplen EP448T	0,9	48	1250	27	5	5,0	3,5	2,5	62	151	90	-	-	Good stiffness and high flowability, low opening torque; Closures, pumps	NU, AS
Moplen EP348U	0,9	70	1200	24	4	5,5	4,0	3,2	50	150	92	-	-	Very high fluidity, Good stiffness; Closures, pumps	NU, AS
Moplen EP549U	0,9	70	1260	23	4	9,0	6,0	5,0	52	147	98	-	-	Very high fluidity, Good stiffness; Closures, pumps	NU, AS
PP RACO															
Purell RP315M	0,9	8	1100	30	11	5,5	2,0	-	45	140	78	50	100	Good aesthetics, slip and antiblocking	SA, AB
Moplen RP340N	0,9	11	1150	30	14	6,0	2,0	-	48	130	76	9	135	Good transparency; Transparent closures	NU
Moplen RP348R	0,9	25	1150	30	11	6,0	2,0	-	50	130	80	9	135	Good transparency, high fluidity; Transparent closures	NU, AS
Moplen RP398T	0,9	40	1100	28	14	5	2,5	-	55	127	70	9	135	Very high fluidity, good transparency, organoleptics, Transparent closures	NU, AS
PP SPECIALTIES															
Adstif HA840R	0,9	20	2300	41	6	2,0	-	-	85	158	110	50	95	High stiffness; Closures, sprayers	NU
Adstif EA648P	0,9	18	1750	32	5	6,5	3,0	2,5	71	153	100	-	70	High crystallinity, high stiffness; Closures	NU, AS
Clyrell EC348P	0,9	14	1200	28	13	5,0	3,0	1,0	-	128	75	15	110	Excellent Transparency and Good Impact; Closures, Sprayers	NU, AS
Adflex X500F	0,89	7,5	550	14	20	65	-	45	-	94	58	-		Very soft Grade; Impact modifier, Soft touch	-

#### **Product selection guide**

## Caps, cosures and tubes - Polyethylene



Properties		Physical					Mechan	ical			Thermal		ESCR		
	Density Melt Flow Rate		Tensile	Tensile	Tensile	Charpy notched impact			Ball indentation	Vicat Softening Temp.		FNCT(*)		Special	
	23°C	190°C, 190°C,		Modulus	Stress at Yield	Elong. at Yield	strength		hardness	hardness (H358/30)					Additives NU = Nucleated
		2,16kg	5kg				23 °C	-30°C		` ' '	100			Peculiarities Typical Applications	AS = Antistatic
Test Method	d ISO 1183 ISO 1133		1133	ISO 527	ISO 527	ISO 527	ISO 179		ISO 868	ISO 2039-1 MPa	ISO 306/A50	ISO 306/B50	Internal method		SA = Slip Agent AB - Anti Block
Units	g/cm³	g/10 min		MPa	MPa	%	% kJ/m²				oC.	oC.	h		
HDPE															
Purell PE GF4750	0,950	0,4	1,5	1000	23	10	12	8	60	44	-	70	43	High ESCR, good organoleptics; Tube bodies and shoulders	-
Hostalen GF4750	0,950	0,4	1,5	1000	23	10	12	8	60	44	-	70	43	High ESCR, good organoleptics; Tube bodies and shoulders	-
Hostalen GD4755	0,953	1,90	6,0	1100	27	10	6	4,5	62	51	-	75	3	Good balance of stiffness, toughness, ESCR and organoleptics. Beverage closures and engineering parts.	-
Hostalen ACP 5331H	0,953	2,1	6,3	1150	30	10	7	5	62	51	-	75	4	Good ESCR and organoleptics; Multimodal grade. Tube shoulders, beverage closures	-
Hostalen ACP 5331H UV B PLUS	0,953	2,1	6,3	1150	30	10	7	5	62	51	-	75	4	Good ESCR and organoleptics; Multimodal grade. Beverage closures; dedicated slip agent	SA
Purell ACP 6541A	0,954	1,45	6,4	1100	22	10	11	4,5	55	54	-	70	12	High ESCR, fluidity and organoleptics. Multimodal grade. Beverage closures	-
Hostalen ACP 6541A UV	0,954	1,45	6,4	1100	22	10	11	4,5	55	54	-	70	12	High ESCR, fluidity and organoleptics. Beverage closures	SA
Hostalen ACP 6541A UV B PLUS	0,954	1,45	6,4	1100	22	10	11	4,5	55	54	-	70	12	High ESCR, fluidity and organoleptics. Beverage closures; dedicated slip agent	SA
Hostalen GD7255	0,955	4	11,0	1200	27	8	4	4,5	60	52	-	73	12	High ESCR, fluidity and organoleptics. Multimodal grade. Beverage closures; dedicated slip agent	SA
Purell GC7260	0,960	8	23	1350	30	10	4	2,5	64	57	-	72	-	High rigidity, good fluidity, organoleptic. Beverage and Water Closures, Tube Shoulders	-
Purell GC7260G	0,960	8	23	1350	30	10	4	2,5	64	57	-	72	-	High rigidity, good fluidity, organoleptic, enhanced thermal resistance. Beverage and Water Closures, Tube Shoulders	-
Purell GB7250	0,952	10	28	1000	24	10	2,5	2	61	46	-	64	-	Good fluidity, low warpage, organoleptic. Beverage and water closures, tube shoulders	-
Purell GA7760	0,963	18	52	1350	30	10	-	-	64	57	-	71	-	Ethylene Oxide Sterilisation; Good Flow; High Density; High Rigidity; Low Warpage	-
Hostalen GA7255	0,955	27	80	1170	27	-	2.4	-	-	-	-	-	-	Good flowability combined with good dimensional stability	-
LDPE					1										
Purell PE 1810E	0,920	0,4	-	200	9	-	-	-	45	16	92	-	-	Tube bodies and shoulders, closures	-
Purell PE 1840H	0,919	1,5	-	200	9	15	-	-	45	15	88	-	-	Tube bodies and shoulders, closures	-
Lupolen 1840D	0,919	0,25	-	200	9	-	-	-	45	15	93	-	-	Tube bodies and shoulders, closures	-
Lupolen 2420H	0,924	1,9	-	260	11	-	-	-	49	18	94	-	-	Tube bodies and shoulders, closures	-
Lupolen 2426H	0,924	1,9	-	260	11	-	-	-	49	18	94	-	-	Tube bodies and shoulders, closures	SA, AB
Purell PE 3020K	0,927	4	-	300	13	-	-	-	51	21	97	-	-	High rigidity, good opticals and good chemical resistance; Tube bodies and shoulders, closures	-
Lupolen 3026K	0,927	4	-	300	13	-	-	-	51	21	97	-	-	High rigidity, good opticals and good chemical resistance; Tube bodies and shoulders, closures	SA, AB
Lupolen 1800S	0,917	20	-	160	8	-	-	-	45	13	81	-	1,5 (ASTM)	Softness and high fluidity. Special parts	-
Purell 2410T	0,924	36	-	280	11	-	-	-	49	18	89	-	0,5 (ASTM)	Softness and very high fluidity. Special parts	-

#### (\*) FNCT (Full Notch Creep Test), 6MPa, 6.6% Dehyton PL, 50°C

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