

Caps, Closures and Tubes

PROPERTIES	PHYSICAL		MECHANICAL						THERMAL			OPTICAL		SPECIAL ADDITIVES NU = NUCLEATED AS = ANTISTATIC SA = SLIP AGENT AB - ANTI BLOCK	
	Density	MFR 230°C, 2,16kg	Tensile Modulus	Tensile Stress at Yield	Tensile Elong. at Yield	Charpy notched impact strength			Ball indentation hardness (H358/30)	Vicat Softening Temp.	Heat De- flect. Temp. HDT/B	Haze 1mm	Gloss at 60°		
	23°C					23 °C	0 °C	-20 °C							
Test Method	ISO 1183	ISO 1133	ISO 527	ISO 527	ISO 527	ISO 179			ISO 2039-1	ISO 306/A50	ISO 75-2			PECULIARITIES TYPICAL APPLICATIONS	
Units	g/cm³	g/10 min	MPa	MPa	%	kJ/m²			MPa	°C	°C	%	%		
PP HOMO															
Moplen HP501H	0,9	2,1	1450	33	9	8,0	-	-	72	154	90	-	-	Good stiffness / impact balance at ambient temperature; Hinged closures	-
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
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 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
Purell EP370S	0,9	42	1250	24	5	7,0	4,5	4,0	62	147	90	-	-	Good stiffness / flowability balance; Hinged and Screw Closures	NU
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 RP270G	0,9	1,8	1000	25	14	20,0	4,0	-	45	136	72	35	110	Collapsible tube bodies	-
Purell RP315M	0,9	8	1100	30	11	5,5	2,0	-	45	140	78	50	100	Good aesthetics, slip and antiblocking	SA, AB
Purell RP370M	0,9	8	850	25	14	7,0	3,0	-	-	135	68	50	100	Good balance of aesthetics and mechanicals	-
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
Purell EA678P	0,9	18	1750	32	5	6,5	3,0	2,5	71	153	100	-	70	High crystallinity, high stiffness; Closures; Medical Devices	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
Clyrell EC340R	0,9	26	1100	23	12	6,5	3,5	2,0	-	123	90	32	100	Good Impact and Transparency; Closures, Sprayers	NU
Adflex X500F	0,89	7,5	550	14	20	65	-	45	-	94	58	-	-	Very soft Grade; Impact modifier, Soft touch	-

Caps, Closures and Tubes

PROPERTIES	PHYSICAL			MECHANICAL							THERMAL		ESCR	PECULIARITIES, TYPICAL APPLICATIONS	SPECIAL ADDITIVES NU = NUCLEATED AS = ANTISTATIC SA = SLIP AGENT AB - ANTI BLOCK
	Density 23°C	Melt Flow Rate		Tensile Modulus	Tensile Stress at Yield	Tensile Elong. at Yield	Charpy notched impact strength		Shore D hardness	Ball indentation hardness (H358/30)	Vicat Softening Temp.		FNCT(*)		
		190°C, 2,16kg	190°C, 5kg				23 °C	-30 °C			ISO 179	ISO 2039-1			
Test Method	ISO 1183	ISO 1133		ISO 527	ISO 527	ISO 527	ISO 179		ISO 868	ISO 2039-1	ISO 306/A50	ISO 306/B50	Internal method		
Units	g/cm ³	g/10 min		MPa	MPa	%	kJ/m ²			MPa	°C	°C	h		
HDPE															
Purell PE GF4750	0,950	0,4	1,5	1000	23	10	12	8	60	44	-	70	65	High ESCR, good organoleptics; Tube bodies and shoulders	-
Hostalen GF4750	0,950	0,4	1,5	1000	23	10	12	8	60	44	-	70	65	High ESCR, good organoleptics; Tube bodies and shoulders	-
Hostalen ACP 5331H	0,953	2,1	6,3	1150	30	10	7	5	62	51	-	75	9	Good ESCR and organoleptics; Multimodal grade. Tube shoulders, beverage closures	-
Hostalen 5231H	0,952	2,0	5,6	1100	25	10	10,4	5,3	70	50	-	74	30	High ESCR, good organoleptics. Beverage closures	-
Hostalen 5231H UV	0,952	2,0	5,6	1100	25	10	10,4	5,3	70	50	-	74	30	High ESCR, good organoleptics. Beverage closures	SA
Purell ACP 6541A	0,954	1,45	6,4	1100	22	10	11	4,5	55	54	-	70	25	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	25	High ESCR, fluidity and organoleptics. Beverage closures	SA
Hostalen GD4755	0,953	1,90	6,0	1100	27	10	6	4,5	62	51	-	75	8	Good balance of stiffness, toughness, ESCR and organoleptics. Beverage closures and engineering parts.	-
Purell GC7260	0,960	8	23	1350	30	10	4	2,5	64	57	-	72	2,5	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	2,5	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	2,5	Good fluidity, low warpage, organoleptic. Beverage and water closures, tube shoulders	-
LDPE															
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	-	150	8	-	-	-	45	13	80	-	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, 2% Arkopal, 50°C

You can find out more about us by visiting our website at: www.lyb.com

Before using a product sold by a company of the LyondellBasell family of companies, users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY) OTHER THAN AS SEPARATELY AGREED TO BY THE PARTIES IN A CONTRACT. This product(s) may not be used in:

(i) any U.S. FDA Class I, Health Canada Class I, and/or European Union Class I Medical Devices, without prior notification to Seller for each specific product and application; or

(ii) the manufacture of any of the following, without prior written approval by Seller for each specific product and application:

(1) U.S. FDA Class II, Health Canada Class II or Class III, and/or European Union Class II Medical Devices; (2) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned Medical Devices; (3) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration; (4) tobacco related products and applications; (5) electronic cigarettes and similar devices; and (6) pressure pipe or fittings that are considered a part or component of a nuclear reactor.

(iii) Additionally, the product(s) may not be used in: (1) U.S. FDA Class III, Health Canada Class IV, and/or European Class III

Medical Devices; (2) applications involving permanent implantation into the body; (3) life-sustaining medical applications; and (4) lead, asbestos or MTBE related applications.

All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification.

Users should review the applicable Material Safety Data Sheet before handling the product.

Adflex, Adstif, Clyrell, Hostalen, Lupolen, Moplen and Purell are trademarks owned or used by LyondellBasell group companies. Clyrell, Hostalen, Lupolen, Moplen and Purell are registered in the U.S. Patent and Trademark Office.