

Polypropylene Consumer and Injection Molding

Containers, crates, garden furniture, housewares, luggage, toys, sports and leisure, TWIM

1/4

Typical properties		Mechanical					Thermal			Optical		Typical customer applications		Specific characteristics		
Density 23 °C	MFR 230 °C, 2,16 kg	Tensile Modulus	Tensile Stress at Yield	Tensile at Yield	Elongation at Break	Charpy impact notched			Ductile/ Brittle Transition Temp.	Heat Deflection Temp. HDT/B	Vicat Softening Temp.		Haze			
						23 °C	0 °C	-20 °C			10N	50N				1mm
ISO 1183	ISO 1133	ISO 527	ISO 527	ISO 527		ISO 179/1eA			ISO 6603-2	0.45 MPa ISO 75-2	ISO 306/A50	ISO 306/B50	ASTM D1003			
Test method unit	g/cm ³	g/10 min	MPa	MPa	%	kJ/m ²			°C	°C	°C		%			
PP HOMOPOLYMER – MOPLEN																
<i>Moplen</i> HP500N	0.9	12	1550	35	10	> 50	3	< 1	< 1	NA	95	153	85	–	General purpose	Good flow with high stiffness, good creep resistance
<i>Moplen</i> HP400R	0.9	25	1350	32	10	> 50	2	< 1	< 1	NA	90	154	85	–	Garden furniture, housewares	High fluidity with good stiffness
<i>Moplen</i> HP548R	0.9	23	1650	35	8	> 50	2.5	< 1	< 1	NA	95	154	94	40	Garden furniture, housewares	NU and AS
<i>Moplen</i> HP648T	0.9	53	1600	35	8	> 50	2	< 1	< 1	NA	95	154	95	40	TWIM, housewares	NU and AS, high flow
PP RANDOM COPOLYMER – MOPLEN																
<i>Moplen</i> RP348R	0.9	25	1150	30	14	> 50	6	3	< 1	10	76	130	72	9	TWIM, housewares, caps	NU and AS, high transparency and gloss
<i>Moplen</i> RP248R	0.9	30	800	22	10	> 50	6.5	3.5	< 1	5	60	120	60	10	TWIM, housewares, toys, sports and leisure	NU and AS, high transparency and gloss
<i>Moplen</i> RP398T	0.9	42	1050	28	14	> 50	5.5	2	< 1	10	70	127	70	9	TWIM, housewares, toys, sports and leisure	NU and AS, odorless, very high transparency and gloss
<i>Moplen</i> RP2380	0.9	48	1100	29	11	> 50	4.5	2.5	< 1	10	70	130	72	9	TWIM, housewares, toys, sports and leisure	NU and AS, very high transparency and gloss
<i>Moplen</i> RP7590	0.9	60	830	25	15	> 50	6.5	2.5			67	120		8	TWIM, transparent housewares, toys, sports and leisure	NU and AS, excellent impact / aesthetics balance, very high transparency, good flowability
<i>Moplen</i> RP398U	0.9	71	1030		14	> 50	5	1.5						11	food containers, transparent packaging, reusable containers, housewares, toys, sports and leisure	NU and AS, odorless, very high transparency and gloss, high flow
<i>Moplen</i> RP348U	0.9	75	1050	30	12	> 50	3.5	1	< 1	10	80	130	72	11	TWIM, housewares, toys, sports and leisure	NU and AS, high transparency and gloss, high flow
<i>Moplen</i> RP398V	0.9	100	950	26			5							10	transparent packaging, reusable containers, housewares, toys, sports and leisure	NU and AS, very high transparency and gloss, very high flow

NA = Not Applicable NU = Nucleated AS = Antistatic TWIM = Thin Wall Injection Moulding NB = No Break

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2/4

Typical properties		Mechanical						Thermal				Optical	Typical customer applications	Specific characteristics		
Test method unit	Density 23 °C	MFR 230 °C, 2,16 kg	Tensile Modulus	Tensile Stress at Yield	Tensile at Yield	Elongation at Break	Charpy impact notched			Ductile/ Brittle Transition Temp.	Heat Deflection Temp. HDT/B	Vicat Softening Temp.		Haze		
	ISO 1183	ISO 1133	ISO 527	ISO 527	ISO 527	23 °C	0 °C	-20 °C	ISO 6603-2	0.45 MPa ISO 75-2	10N	50N	1mm			
	g/cm ³	g/10 min	MPa	MPa	%	kJ/m ²			°C	°C	°C		%			
PP HETEROPHASIC COPOLYMER – MOPLEN																
<i>Moplen</i> EP440G	0.9	1.3	1450	27	8	> 50	40	9	7	-55	78	150	66	Opaque	Luggage, toys, sports and leisure, crates	NU, excellent mechanical balance, excellent creep resistance
<i>Moplen</i> EP400H	0.9	1.5	1400	29	8	> 50	40	9	7	-55	78	150	66	Opaque	Luggage, toys, sports and leisure, crates	Excellent mechanical balance, excellent creep resistance
<i>Moplen</i> EP240H	0.9	2	1100	23	8	> 50	60	12	8	-47	80	148	60	Opaque	Crates	NU, very high impact
<i>Moplen</i> EP340K	0.9	4	1100	20	5	> 50	66	13	7	< -50	85	140	52	Opaque	Luggage, toys, sports and leisure, crates	NU, very high impact, excellent creep resistance
<i>Moplen</i> EP340M	0.9	7.5	1150	21	6	> 50	45	9	7	< -50	80	144	58	Opaque	Luggage, toys, sports and leisure, crates	NU, high impact, good stacking balance
<i>Moplen</i> EP540N	0.9	12	1500	28	4	> 50	7	4.5	4	< -50	95	151	75	Opaque	Housewares, caps, toys, sports and leisure	NU, high impact, good stiffness
<i>Moplen</i> EP240P	0.9	15	1000	20	7	> 50	13	6	5	< -50	78	142	56	Opaque	TWIM, ice cream, toys, sports and leisure	NU, high impact
<i>Moplen</i> EP540P	0.9	15	1400	28	6	> 50	7	3.5	3	-45	90	151	68	Opaque	Luggage, housewares, containers	NU, high stiffness/impact balance
<i>Moplen</i> EP548P	0.9	16	1550	28	5	> 50	8	4	3	-45	100	147	70	Opaque	TWIM, housewares, large to medium containers, crates	NU and AS, good stiffness/impact balance
<i>Moplen</i> EP548R	0.9	21	1550	27	5	> 50	6	4.5	4	< -50	95	149	70	Opaque	TWIM, housewares, toys, sports and leisure	NU and AS, good stiffness/impact balance

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Test method unit	Density 23 °C	MFR 230 °C, 2,16 kg	Tensile Modulus	Tensile Stress at Yield	Tensile at Yield	Elongation at Break	Charpy impact notched			Ductile/ Brittle Transition Temp.	Heat Deflection Temp. HDT/B	Vicat Softening Temp.		Haze			
	ISO 1183	ISO 1133	ISO 527	ISO 527	ISO 527		23 °C		0 °C	-20 °C	ISO 6603-2	0.45 MPa ISO 75-2	10N	50N			1mm
	g/cm ³	g/10 min	MPa	MPa	%		kJ/m ²			°C	°C	°C	°C	°C			%
PP HETEROPHASIC COPOLYMER – MOPLEN																	
<i>Moplen</i> EP340S	0.9	42	1250	24	5	> 50	7	4.5	4	< -50	90	147	67	Opaque	TWIM	NU, good flow/impact balance	
<i>Moplen</i> EP548S	0.9	44	1550	28	5	30	5	3.5	3	< -50	95	151	80	Opaque	TWIM, housewares, toys, sports and leisure	NU and AS, good stiffness/impact balance	
<i>Moplen</i> EP240T	0.9	48	950	19	5	> 50	8	5	4	< -50	78	142	56	Opaque	TWIM, ice cream, housewares	NU, high impact, low warpage	
<i>Moplen</i> EP448T	0.9	48	1350	27	5	40	5	3.5	2.5	-40	90	151	70	Opaque	TWIM, ice cream, housewares	NU and AS, low warpage	
<i>Moplen</i> EP548T	0.9	48	1550	29	5	> 50	4	2.5	2	-25	98	152	83	Opaque	TWIM	NU and AS, low warpage, high rigidity	
<i>Moplen</i> EP348U	0.9	70	1200	24	4	30	5.5	4	3.2	-45	85	150	65	Opaque	TWIM, dairy products, housewares	NU and AS, low warpage, high flow	
<i>Moplen</i> EP548U	0.9	70	1550	28	5	30	5	3.5	3	< -50	95	151	80	Opaque	TWIM, dairy products, housewares	NU and AS, high flow	
<i>Moplen</i> EP549U	0.9	70	1260	23	4	10	9	6	5	-45	98	147	67	Opaque	Ice cream containers, yellow fat, dairy products, packaging, housewares	NU and AS, excellent impact/stiffness balance and fluidity	
<i>Moplen</i> EP548V	0.9	100	1650	28	5	10	3.5	2.5	2	-45	90	152	90	Opaque	TWIM, housewares, toys, sports and leisure	NU and AS, very high flow	
<i>Moplen</i> EP648V	0.9	100	1750	30	4	10	2.5	2	1.5	-20	100	154	90	Opaque	TWIM, housewares	NU and AS, high rigidity, very high flow	

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Typical properties	Mechanical						Thermal				Optical	Typical customer applications	Specific characteristics			
	Density 23 °C	MFR 230 °C, 2,16 kg	Tensile Modulus	Tensile Stress at Yield	Tensile at Yield	Elongation at Break	Charpy impact notched			Ductile/ Brittle Transition Temp.	Heat Deflection Temp. HDT/B			Vicat Softening Temp.		Haze
							23 °C	0 °C	-20 °C					10N	50N	
Test method unit	ISO 1183	ISO 1133	ISO 527	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eA			ISO 6603-2	0.45 MPa ISO 75-2	ISO 306/A50	ISO 306/B50	ASTM D1003		
	g/cm ³	g/10 min	MPa	MPa	%	kJ/m ²			°C	°C	°C		%			
CLYRELL																
<i>Clyrell</i> EC348P	0.9	14	1200	28	13	> 50	5	2	1	-5	75	128	65	13	Transparent shock resistant food/ non food containers, houseware	NU, low warpage, high gloss, low blush
<i>Clyrell</i> EC340Q	0.9	22	1150	23	13	> 50	22	-	4	-46	88	127	58	40	TWIM, toys, leisure, sports	NU, low warpage, high gloss, low blush
<i>Clyrell</i> EC340R	0.9	26	1180	23	12	> 50	6	3	2	-48	90	123	57	< 35	Ice cream containers, dairy products	NU, good impact and low stress whitening
<i>Clyrell</i> EC140R	0.9	30	850	20	18	> 50	20	6	4	-50	60	114	52	20	Ice cream containers, dairy products	NU, very high impact, high flow, low stress whitening
<i>Clyrell</i> EC390T	0.9	48	1025	22	11.5	> 50	5	3.5	3.3	< -50				36	Ice cream containers, dairy products	NU, good impact and low stress whitening
<i>Clyrell</i> RC449S	0.9	42	1250	30	11.5	> 50	4	1.5			75			6	Transparent (food) packaging, housewares, consumer goods, cosmetics packaging	NU, AS, excellent transparency and gloss, improved stiffness with good impact, very good organoleptic
<i>Clyrell</i> RC549S	0.9	44	1470	34	10.5	> 50	2.5	1.2			86			10	Transparent (food) packaging, transparent drinking cups, housewares, consumer goods, cosmetics packaging	NU, AS, very high stiffness, very good transparency, gloss and organoleptic
PP HOMOPOLYMER – ADSTIF																
<i>Adstif</i> HA840R	0.9	20	2300	41	6	12	2	< 1	< 1	NA	110	158	104	40	TWIM, garden furniture	NU, good dimensional stability at high temperature
PP HETEROPHASIC COPOLYMER – ADSTIF																
<i>Adstif</i> EA648P	0.9	18	1700	32	5	50	5.5	3	2.5	-40	100	153	84	Opaque	TWIM, dairy products, housewares	NU, AS, high crystallinity
ADFLEX																
<i>Adflex</i> C200F	0.9	6	220	9	35	> 500	NB	NB	NB	< -50	50	89	-	-	Containers, dairy products, housewares	Soft touch, impact modifier for transparent applications
<i>Adflex</i> X500F	0.9	7.5	550	14	17	> 400	NB	NB	NB	< -50	54	91	33	30	Containers, dairy products, housewares	Impact modifier for transparent applications, low temperature exposure
<i>Adflex</i> X100G	0.9	8	100	5	20	> 500	NB	NB	NB	< -50	44	55	-	40	Containers, dairy products, housewares	Soft touch, impact modifier for higher melt flow rate

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