TECHNICAL DATASHEET

B4660

AL RAMZ
Plastic Factory

PRODUCT DESCRIPTION

B4660 grade are medium molecular weight High Density Polyethylene homopolymer for blow molding Applications. They are primarily Designed for imparting high rigidity, toughness and good processability. These unique properties offer the possibility to reduce weight at very good top load strength. B4660: Suitable for Dairy products and Juice Packaging

TRPICAL APPLICATION

B4660 Series resins are primarily intended for blow molding bottles for the food and beverage industry. The grade B4660AB is specifically recommended for water packaging applications. The grades are intended to meet customer specifications in respect of purity, healthiness and organoleptic. They can also be used in other hollow thin-walled parts and profile extrusions. They are not recommended for packaging Environmentally active materials such as soaps, detergents, shampoos, etc.

TYPICAL DATA

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate @ 190°C & 2.16 kg load (1)	0.7	g/10 min	ASTM D1238
Melt Flow Rate @ 190°C & 5 kg load	2.8	g/10 min	ISO 1133
Melt Flow Rate @ 190°C & 21.6 kg load	46	g/10 min	ISO 1133
Density at 23°C (2)	961	kg/m³	ASTM D1505
MECHANICAL PROPERTIES			
1% Secant Modulus	> 1000	MPa	ASTM D638
Tensile Strength at Yield	30	MPa	ASTM D638
Tensile Strength at Break	18	MPa	ASTM D638
Tensile Elongation at Break	500	%	ASTM D638
Flexural Strength	28	MPa	ASTM D790
Flexural modulus	1100	MPa	ISO 178/1A
Izod Impact Strength	150	J/m	ASTM D256
Hardness (Shore D)	66	-	ASTM D2240
THERMAL PROPERTIES			
Vicat Softening Point	127	°C	ASTM D1525
Brittleness Temperature	< -75	°C	ASTM D746

TECHNICAL DATASHEET

F00952

PRODUCT DESCRIPTION

F00952 is a high molecular weight, high density polyethylene copolymer which has a broad molecular weight distribution. The design of the product, molecular architecture and density, gives it a unique combination of easy extrusion and high melt streng with strong physical properties which makes it suitable for producing thin films with excellent strength and rigidity

TRPICAL APPLICATION

F00952 is recommended for blown film extrusion. This product is suggested for the manufacture of high strength grocery sacks, shopping bags and high quality thin films for multi-wall sack liners and replacement for thin paper products. Films produced wi this product can be readily treated and printed to give high quality graphics.

TYPICAL DATA

PROPERTIES	Unit	Value (1)	Test Method
Melt Flow Rate			
@ 190°C & 2.16 kg load	g/10 min	0.05	ASTM D 1238
@ 190°C & 21.6 kg load		9	
Density @ 23°C	Kg/m3	952	ASTM D 1505
MECHANICAL PROPERTIES (2)			
Tensile Strength @ break, MD, TD	MPa	60 , 56	ASTM D 882
Tensile Elongation @ break, MD, TD	%	400 , 550	ASTM D 882
Tensile Strength @ yield, MD, TD	MPa	33 , 31	ASTM D 882
1% Secant Modulus, MD, TD	MPa	1250 , 1500	ASTM D 882
Dart Impact Strength, F50	g	180	ASTM D 1709
Elmendorf Tear Strength, MD, TD	g	12 , 60	ASTM D 1922
THERMAL PROPERTIES			
Vicat Softening Point	°C	125	ASTM D 1525

(1) Typical values: not to be construed as specification limits.
(2) Properties are based on 15 µm film produced at 4 BUR using 100% F00952.

Processing Conditions:
Melt Temperature: 200-235°C
Frost line Height: 6-8 times die Ø
BUR: 3-5

TECHNICAL DATASHEET

HHM TR-144

This high molecular weight hexene copolymer is designed for film applications. It has been formulated to provide….

- Good processability
- Good toughness and durability
- Good blending characteristics with HDPE HMW film resin

Nominal Physical Properties *	ASTM	Unit	Value
Density	D1505	g/cm^3	0.946
Melt Index, Condition 190°C/ 2.16 kg	D1238	g/10min	0.18
HLMI, Condition 190°C/21.6 kg	D1238	g/10min	15
Flexural Modulus, Tangent	D790	MPa	1150
Brittleness Temperature	D746	°C	<-75
Typical Film Properties**			
Dart Drop (66cm)	D1709	g	90
Spencer Impact Strength	D3420	J	0.35
Tensile Yield Strength, 50 mm/min	D882	MPa	MD: 24 TD: 26
Elongation at Break, 50 mm/min	D882	%	MD: 480 TD: 640
Elmendorf Tear Strength	D1922	g	MD: 19 TD: 270

TECHNICAL DATASHEET

HDPE M80064

PRODUCT DESCRIPTION

HDPE M80064 is a high density polyethylene injection moulding grade with a narrow molecular weight distribution. It is intended for use in injection moulding applications where rigidity, toughness and warp resistance are required. HDPE M80064 is available with UV stabilizer as HDPE M80064S.

TRPICAL APPLICATION

HDPE M80064 is designed to suit the manufacture of injection moulded cases, crates, trays, industrial pails and other similar items requiring toughness and rigidity

TYPICAL DATA

Properties	Units SI	Values	Test methods
Polymer properties			
Melt flow rate (MFR) at 190 °C and 2.16 kg	g/10 min	**8.0**	ASTM D 1238
Density [1)]	kg/m³	**964**	ASTM D 1505
Mechanical properties [1)]			
Tensile test			ASTM D 638
stress at yield	MPa	**33**	
stress at break	MPa	**15**	
strain at break	%	**650**	
secant modulus at 1% elongation	MPa	**1240**	
Izod impact notched at 23 °C	J/m	**48**	ASTM D 256
Hardness Shore D	-	**69**	ASTM D 2240
ESCR (100% Igepal), F50	h	**3**	ASTM D 1693B
Thermal properties [1)]			
Vicat softening temperature at 10 N (VST/A)	°C	**128**	ASTM D 1525

TECHNICAL DATASHEET

M200056

PRODUCT DESCRIPTION

M200056 is a High Density Polyethylene grade with narrow molecular weight distribution suitable for injection molding applications. It has been designed to give good flow properties, low warp age with good dimensional stability and high gloss.

TRPICAL APPLICATION

M200056 is recommended for housewares, food containers, toys, caps and closures etc.

TYPICAL DATA

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate			
at 190°C and 2.16 kg	20	g/10 min	ASTM D1238
Density at 23°C (1)	956	kg/m³	ASTM D1505
MECHANICAL PROPERTIES			
1% Secant Modulus	800	MPa	ASTM D638
Tensile Strength at Yield	24	MPa	ASTM D638
Tensile Strength at Break	12	MPa	ASTM D638
Tensile Elongation at Break	> 200	%	ASTM D638
Flexural Strength	23	MPa	ASTM D790
Flexural modulus	825	MPa	ISO 178/1A
Izod Impact Strength (2)	30	J/m	ASTM D256
Hardness (Shore D)	60	-	ASTM D2240
ESCR (100% Igepal), F50 (3)	3	hrs	ASTM D1693B
ESCR (10% Igepal), F50	2	hrs	ASTM D1693B
THERMAL PROPERTIES			
Vicat Softening Point	124	°C	ASTM D1525
Brittleness Temperature	< -75	°C	ASTM D746

TECHNICAL DATASHEET

NPP Black

PRODUCT DESCRIPTION

NPP Black is a High Density Polyethylene, black colored resin. It has high melt viscosity, it is an appropriate resin for extrusion of non pressure pipes.

TRPICAL APPLICATION

Non pressure applications: sheet pipe and sewage pipe.

TYPICAL DATA

Physical	Method	Unit	Value
Density	ISO 1183	g / cm^3	0.960
Melt Flow Rate (190℃/5.0kg)	ISO 1133	g / 10 min	0.60
Melt Flow Rate (190℃/21.6kg)	ISO 1133	g / 10 min	10.0

Mechanical	Method	Unit	Value
Tensile Modulus	ISO 527-1,2	MPa	1100
Tensile Stress @ Yield	ISO 527-1,2	MPa	25
Tensile Strain @ Yield	ISO 527-1,2	%	9
Carbon Black Content	ISO 6964	%	2.25

Recommended Temperatures:
Melt temperature: 190-220 ℃, Injection moulding temperatures: 200-280 ℃

Note :

Typical properties; not to be construed as specifications

TECHNICAL DATASHEET

PE 100 Blue

PRODUCT DESCRIPTION

PE 100 Blue is a High Density Polyethylene, blue colored resin. The product is classified as PE 100 and provides excellent environmental stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength. It has very high impact strength resistance and excellent processability.

TRPICAL APPLICATION

Drinking Water Pipes.

TYPICAL DATA

Physical	Method	Unit	Value
Density	ISO 1183	g/cm^3	0.950
Melt Flow Rate (190°C/5.0kg)	ISO 1133	g/10 min	0.23
Melt Flow Rate (190°C/21.6kg)	ISO 1133	g/10 min	6.4
Staudinger Index Jg	ISO 1628	ml/g	380
Vicat Softening Temperature (VST/B/50 k/h (50N))	ISO 306	°C	74
Mechanical	**Method**	**Unit**	**Value**
Tensile Modulus (23°C, v = 1mm/min, Secant)	ISO 527-1,2	MPa	850
Tensile Stress @ Yield (23°C, v = 50 mm/min)	ISO 527-1,-2	MPa	23
Tensile Strain @ Yield (23°C, v = 50 mm/min)	ISO 527-1,-2	%	9
Tensile Creep Modulus 1h [Test stress in MPa]	ISO 899-1	MPa	850 [2.0]
Tensile Creep Modulus 1000 h [Test stress in MPa]	ISO 899-1	MPa	350 [2.0]
Maximum Elongation TD	EN 638	%	> 350
MRS Classification	ISO/TR 9080	MPa	10
Flexural Stress at 3.5% deflection	ISO 178	MPa	20
FNCT (4.0 MPa, 2% Arkopal N 100, 80°C)	ISO 16770	h	> 1000
Flexural Creep Modulus	DIN 19537-2		
(4 Point loading method, 1min-value)		MPa	1100
(4 Point loading method, 24h-value)		MPa	560
(4 Point loading method, 2000h-value)		MPa	330
Charpy Notched Impact Strength	ISO 179		
(23°C)		kJ/m^2	29
(-30°C)		kJ/m^2	15
Shore Hardness (Shore D (3 sec))	ISO 868		62
Oxydation Induction Time (OIT) (210°C)	EN 728	min	≥ 30
Odor Treshold	EN 1622/EN 1240		< 2.0

Recommended Temperatures:
Melt temperatures: 190-220 °C. Injection molding temperatures: 200-280 °C

Note:
The typical properties are not to be construed as specifications.

TECHNICAL DATASHEET

B5429

PRODUCT DESCRIPTION

HDPE B5429 is medium molecular weight high density polyethylene copolymer. It is typically used for blow moulding bottles of small sizes. HDPE B5429 offers very good combination of toughness, stress cracking resistance (ESCR), load bearing strength and processability characteristics.

TRPICAL APPLICATION

HDPE B5429 is classified as a multipurpose blow moulding grade. It may be blow moulded into containers for household and industrial chemicals (e.g. detergents, bleach, fabric softeners, solvents, paints, etc.), automotive supplies, foodstuffs, toiletries and cosmetics. It is typically also used for other hollow thin-walled parts and profile extrusions.

TYPICAL DATA

Properties		Units SI	Values	Test methods
Polymer properties				
Melt flow rate (MFR)				ASTM D 1238
at 190 °C and 2.16 kg		g/10 min	**0.3**	
at 190 °C and 5 kg		g/10 min	**1.5**	
at 190 °C and 21.6 kg		g/10 min	**29**	
Density	1)	kg/m³	**954**	ASTM D 1505
Mechanical properties	1)			
Tensile test				ASTM D 638
stress at yield		MPa	**27**	
strain at yield		%		
stress at break		MPa	**17**	
strain at break		%	**>1000**	
secant modulus at 1% elongation		MPa	**1200**	
Flexural test				ASTM D 790
flexural modulus, 1% secant		MPa	**1250**	
flexural strength		MPa	**36**	
Izod impact notched				ASTM D 256
at 23 °C		J/m	**150**	
at -30 °C		J/m	**55**	
Hardness Shore D		-	**65**	ASTM D 2240
ESCR (10% Igepal), F50		h	**40**	ASTM D 1693B
Thermal properties				
Heat deflection temperature	1)			ASTM D 648
at 0.45 MPa (HDT/B)		°C	**84**	
Vicat softening temperature	1)			ASTM D 1525
at 10 N (VST/A)		°C	**125**	
DSC test				ASTM D 3418
melting point		°C	**131**	

TECHNICAL DATASHEET

HD B1258

PRODUCT DESCRIPTION

HD B1258 is a High Density Polyethylene with an excellent combination of stiffness and environmental stress crack resistance (ESCR). It is delivered in pellet form.

TRPICAL APPLICATION

Designed for small blow moulding containers up to 5 liters for food and consumer applications.

TYPICAL DATA

Physical	Method	Unit	Value
Density	ISO 1183	g/cm³	0.958
Melt Flow Rate (190°C /2.16kg)	ISO 1133	g/10 min	0.25
Melt Flow Rate (190°C /5kg)	ISO 1133	g/10 min	1.2
Melt Flow Rate (190°C /21.6kg)	ISO 1133	g/10 min	22
Vicat Softening Temperature (B50 (50°C/h 50N))	ISO 306	°C	79

Mechanical	Method	Unit	Value
Tensile Modulus	ISO 527-1, -2	MPa	1320
Tensile Stress @ Yield	ISO 527-1, -2	MPa	28.0
Tensile Strain @ Yield	ISO 527-1, -2	%	10
Tensile Impact Strength (*Note*: notched)	ISO 8256	kJ/m²	75.0
Charpy Notched Impact Strength (*Note*: notch A, Type 1, -30°C)	ISO 179	kJ/m²	11.0
Shore Hardness (Shore D)	ISO 868		63
Ball Indentation Hardness (H132/30)	ISO 2039-1	MPa	53.0

(Staudigner Index Jg ; ISO 1628: 260 ml/g FNCT: 3.5 MPa, 2% Arcopal, 80°C, ISO 16770: 8 h ESCR)

Recommended Temperature:

Melt temperature: 180°C-220°C

Note:

The above properties are not to be construed as specifications.

TECHNICAL DATASHEET

M8060

PRODUCT DESCRIPTION

M8060 is a high density polyethylene resin used for injection molding. It has good flow characteristics that make it easier to process. Injection molding parts made from this resin exhibit high modulus and low webpage.

TRPICAL APPLICATION

Transport and storage containers,Cartridges,Technical parts with moderate ESCR requirements ,
Closures for still mineral waters.

TYPICAL DATA

Resin Properties	Unit	Test Method	Typical Value
MFR (190ºC/2.16Kg)	g/10min	ASTM D1238	8.0
Density	g/cm^3	ASTM D792 Method A	0.960
Mechanical Properties*			
Tensile Strength at Yield	MPa	ASTM D638	29
Tensile Strength at Break	MPa	ASTM D638	16
Flexural Modulus	MPa	ASTM D790	1430
Izod Impact, Notched 23 ºC	kJ/m^2	ASTM D256	3.0
Shore Hardness-D		ASTM D2240	68
ESCR (Igepal10%) F_{50}	hr	ASTM D1693	5.0
Thermal Properties*			
Vicat Softening Temperature @10N	ºC	ASTM D1525	127

TECHNICAL DATASHEET

PE 100 Orange

PRODUCT DESCRIPTION

PE 100 Orange is a High Density Polyethylene, orange colored resin. The product is classified as PE 100 and provides excellent environmental stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength. It has very high impact strength resistance and excellent processability.

TRPICAL APPLICATION

Drinking Water Pipes.

TYPICAL DATA

Physical	**Method**	**Unit**	**Values**
Density	ISO 1183	g/cm^3	0.951
Melt Flow Rate (190°C/5 kg)	ISO 1133	g/10min	0.23
Melt Flow Rate (190°C/21.6 kg)	ISO 1133	g/10min	6.4
Staudinger Index Jg	ISO 1628	ml/g	380
Vicat Softening Temperature (VST/B/50 k/h (50N))	ISO 306	°C	74

Mechanical	**Method**	**Unit**	**Values**
Tensile Modulus (23°C, v = 1 mm/min, Secant)	ISO 527-1,2	MPa	850
Tensile Stress @ Yield (23°C, v = 50 mm/min)	ISO 527-1,2	MPa	23
Tensile Strain @ Yield (23°C, v = 50 mm/min)	ISO 527-1,-2	%	9
Tensile Creep Modulus 1h [Test stress in MPa]	ISO 899-1	MPa	800 [2.0]
Tensile Creep Modulus 1000 h [Test stress in MPa]	ISO 899-1	MPa	350 [2.0]
Maximum Elongation TD	EN 638	%	> 350
MRS Classification ISO/TR 9080	ISO/TR 9080	MPa	10
Flexural Stress at 3.5% deflection	ISO 178	MPa	20
FNCT (4.0 MPa, 2% Arkopal N 100, 80°C)	ISO 16770	h	> 1000
Flexural Creep Modulus	DIN 19537-2		
(4 Point loading method, 1min-value)		MPa	1100
(4 Point loading method, 24h-value)		MPa	560
(4 Point loading method, 2000h-value)		Mpa	330
Charpy Notched Impact Strength	ISO 179		
(23°C)		kJ/m^2	29
(-30°C)		kJ/m^2	15
Shore Hardness (Shore D (3 sec))	ISO 868	-	62
Oxidation Induction Time (OIT) (210°C)	EN 728	min	≥ 30
Odor Threshold	EN 1622/EN 1240	-	< 2.0

Recommended Temperatures:
Melt temperatures: 190-220 °C. Injection molding temperatures: 200-280 °C
Note:
The typical properties are not to be construed as specifications.

TECHNICAL DATASHEET

PE 100 Black

PRODUCT DESCRIPTION

PE 100 Black is a High Density Polyethylene, black colored resin. The product is classified as PE 100 and provides excellent environmental stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength. It has very high impact and stiffness properties.

TRPICAL APPLICATION

Leading PE for pressure pipe, for gas and water distribution, sewage and drainage.

TYPICAL DATA

Physical	Method	Unit	Value
Density	ISO 1183	g/cm³	0.959
Melt Flow Rate (190°C /5kg)	ISO 1133	g/10 min	0.23
Melt Flow Rate (190°C /21.6kg)	ISO 1133	g/10 min	6.4
Staudinger Index Jg	ISO 1628	Ml/g	380
Vicat Softening Temperature(VST/B/50 K/h (50N))	ISO 306	°C	74

Mechanical	Method	Unit	Value
Tensile Modulus (23°C, v = 1mm/min, Secant)	ISO 527-1, -2	MPa	900
Tensile Stress @ Yield (23°C, v = 50 mm/min)	ISO 527-1, -2	MPa	23
Tensile Strain @ Yield (23°C, v = 50 mm/min)	ISO 527-1, -2	%	9
Tensile Creep Modulus 1h [Test stress in MPa]	ISO 899-1	MPa	850 [2.0]
Tensile Creep Modulus 1000h [Test stress in MPa]	ISO 899-1	MPa	360 [2.0]
Maximum Elongation TD	EN 638	%	>350
MRS Classification	ISO/TR 9080	MPa	10
Flexural Stress at 3,5% deflection	ISO 178	MPa	21
FNCT (4.0 MPa, 2% Arkopal N 100, 80°C)	ISO 16770	h	>1000
Flexural Creep Modulus	DIN 19537-2		
(4 Point loading method, 1 min-value)		MPa	1100
(4 Point loading method, 24 h-value)		MPa	560
(4 Point loading method, 2000 h-value)		MPa	330
Charpy Notched Impact Strength	ISO 179		
(23°C)		kJ/m²	26
(-30°C)		kJ/m²	13
Shore Hardness (Shore D (3 sec))	ISO 868		63
Oxidation Induction Time (OIT) (210°C)	EN 728	min	30
Carbon Black Content	ISO 6964	%	2.25
Odour Treshold	EN1622/EN1240		<2

Recommended Temperature:
Melt temperature : 190–220 °C, Injection moulding temperatures : 200–280 °C.

Note:
The above properties are not to be construed as specifications.

TECHNICAL DATASHEET

HE3490

PRODUCT DESCRIPTION

HE3490-LS is a black, bimodal, high density polyethylene classified as a MRS 10.0 material (PE100) produced by the advanced Borstar technology. Well dispersed carbon black gives outstanding UV resistance. Long term stability is ensured by an optimised stabilisation

TRPICAL APPLICATION

HE3490-LS is recommended for pressure pipe systems in the applications field of drinking water and natural gas, pressure sewerage, relining, sea outfall and industrial. It is especially designed for the production of larger diameter, thick wall pipe, but can be processed for the whole range of diameters. It also shows excellent resistance to rapid crack

TYPICAL DATA

PHYSICAL PROPERTIES		Typical Value*	Unit	Test Method
Density	(Base resin)	949	kg/m^3	ISO 1183/ISO 1872-2B
Density	(Compound)	959	kg/m^3	ISO 1183/ISO 1872-2B
Melt Flow Rate	(190°C/2.16 kg)	<0.1	g/10 min	ISO 1133
Melt Flow Rate	(190°C/5.0 kg)	0.25	g/10 min	ISO 1133
Tensile Stress at Yield	(50 mm/min)	25	Mpa	ISO 527-2
Tensile Strain at Break		>600	%	ISO 527-2
Tensile Modulus	(1 mm/min)	1100	MPa	ISO 527-2
Charpy Impact, notched	(0°C)	16	kJ/m^2	ISO 179/1eA
Hardness, Shore D		60	-	ISO 868
Carbon Black Dispersion		<3		ISO 18553
Carbon Black content		>2	%	ASTM D 1603/ISO 6964
Brittleness Temperature		<-70	°C	ASTM D 746
Resistance to Rapid Crack Propagation, S4 test	(Pc at 0°C, test pipe 250mm SDR11)	>10	bar	ISO 13477
Resistance to Slow Crack Growth	(9.2bar, 80°C)	>1000	h	ISO 13479
Thermal Stability	(210°C)	>20	min	EN 728
ESCR	(10% Igepal), F_{50}	>10000	h	ASTM D 1693-A

* Data should not be used for specification work.

TECHNICAL DATASHEET

HDPE P6006

PRODUCT DESCRIPTION

P6006 is black compound high density (class MRS 10 - PE 100) Polyethylene with bimodal distribution of molecular mass. It is specifically designed for pressure Pipe applications. It provides excellent stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength.

TRPICAL APPLICATION

P6006 Pressure pipes for drinking water, irrigation, gas distribution and waste water pipes. It is also recommended for manufacture of chemical liners and containers.

TYPICAL DATA

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (1)			
@ 190°C & 5 kg load (1)	0.23	g/10 min	ISO 1133
@ 190°C & 21.6 kg load (1)	6.2	g/10 min	ISO 1133
Carbon black content (1)	2.25	%	ISO 6964
Density @ 23°C (1)	959	kg/m³	ISO 1183
MECHANICAL PROPERTIES (3)			
Hardness (Shore D) (2)	63	-	ISO 868
Tensile Strength @ Yield (3)	23	MPa	ISO 527-2
Tensile Elongation @ Yield (3)	9	%	ISO 527-2
Tensile Modulus (3)	900	MPa	ISO 899
Charpy Impact Notched @ 23°C (2)	26	kJ/m²	ISO 179
Charpy Impact Notched @ -30°C (2)	13	kJ/m²	ISO 179
THERMAL PROPERTIES			
Vicat Softening Point @ 50N (VST/B)	74	°C	ISO 306
OIT (210°C)	>	min	EN 728

TECHNICAL DATASHEET

HDPE F01552

PRODUCT DESCRIPTION

HDPE F01552 is a medium molecular weight high density polyethylene specifically designed for blown film extrusion. It has a broad molecular weight with excellent extrudability and draw down characteristics. The material contains anti oxidant .

TRPICAL APPLICATION

HDPE F01552 resin is recommended for the production of strong millinery and notion bags, deep freeze bags, table cloths and thin film as quality replacement for paper products

TYPICAL DATA

Properties	Units SI	Values	Test methods
Polymer properties			
Melt flow rate (MFR)			ISO 1133
at 190 °C and 2.16 kg	g/10 min	**0.15**	
at 190 °C and 21.6 kg	g/10 min	**16**	
Density	kg/m³	**952**	ISO 1183
Formulation			
Anti oxidant	mg/kg	**+**	SABIC method
Film properties			
Dart Impact F50	g	**180**	ASTM D 1709
Tear strength TD Elmendorf	g	**40**	ASTM D 1922
Tear strength MD Elmendorf	g	**4**	ASTM D 1922
Tensile test film			ASTM D 882
Yield stress TD	MPa	**30**	
Yield stress MD	MPa	**31**	
Stress at break TD	MPa	**49**	
Stress at break MD	MPa	**55**	
Strain at break TD	%	**610**	
Strain at break MD	%	**400**	
Modulus of elasticity TD	MPa	**1700**	
Modulus of elasticity MD	MPa	**1400**	
Thermal properties			
Vicat softening temperature	°C	**125**	ASTM D 1525

TECHNICAL DATASHEET

HDPE B2555

PRODUCT DESCRIPTION

B2555 is a medium molecular weight high density polyethylene resin used for blow molding. Blow moldedparts made from this resin exhibit high stiffness, good impact strength and good Environmental Stress-Cracking Resistance (ESCR).

TRPICAL APPLICATION

Small and medium size containers for household and industrial chemicals.

TYPICAL DATA

Resin Properties	Unit	Test Method	Typical Value
MFR (190ºC/2.16Kg)	g/10min	ASTM D1238	0.3
MFR (190ºC/5.0Kg)	g/10min	ASTM D1238	1.4
Density	g/cm^3	ASTM D792 Method A	0.954
Mechanical Properties*			
Tensile Strength at Yield	MPa	ASTM D638	27
Tensile Strength at Break	MPa	ASTM D638	34
Tensile Elongation at Break	%	ASTM D638	740
Flexural Modulus	MPa	ASTM D790	1200
Tensile Impact	kJ/m^2	ASTM D1822	200
Izod Impact, Notched 23 ºC	kJ/m^2	ASTM D256	10
Izod Impact, Notched -30 ºC	kJ/m^2	ASTM D256	5.0
Shore Hardness-D		ASTM D2240	68
ESCR (Igepal10%) F_{50}	Hr.	ASTM D1693	63
Thermal Properties*			
Vicat Softening Temperature @10N	ºC	ASTM D1525	127

TECHNICAL DATASHEET

HD F0455

PRODUCT DESCRIPTION

HD F0455 is a High Density Polyethylene resin which possesses an outstanding combination of stiffness and impact performance. This grade can be processed on blown film lines at high output rates with excellent bubble stability, very low gel levels and homogeneous appearance

TRPICAL APPLICATION

Main applications are household bags, standard carrier bags, T-shirt bags, bin liner, co-extruded blown films, automatic packaging film, lamination and release film, perforated boiling bags, artificial paper, labels and heavy duty packaging.

TYPICAL DATA

Physical	Method	Unit	Value
Density	ISO 1183	g/cm³	0.957
Melt Flow Rate (190°C /5kg)	ISO 1133	g/10 min	0.40
Melt Flow Rate (190°C /21.6kg)	ISO 1133	g/10 min	12.0
Mechanical	Method	Unit	Value [1]
Dart Drop Impact	ASTM D 1709	g	270
Tensile Strength	ISO 527-1, -3		
Note : MD		MPa	37.0
Note : TD		MPa	35.0
Tensile Strain at Break	ISO 527-1, -3		
Note : MD		%	400
Note : TD		%	480
Elmendorf Tear Strength	ISO 6383-2		
Note : MD		mN	300
Note : TD		mN	420

[1] (Film properties tested using 20 μm thickness blown film extruded at a melt temperature of 210°C, long stalk process and a blow- up ratio of 4:1)

Recommended Temperature:

Melt temperature: 200-230°C, thickness: 10 to 200 μm

Note:

The above properties are not to be construed as specification.