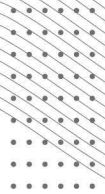
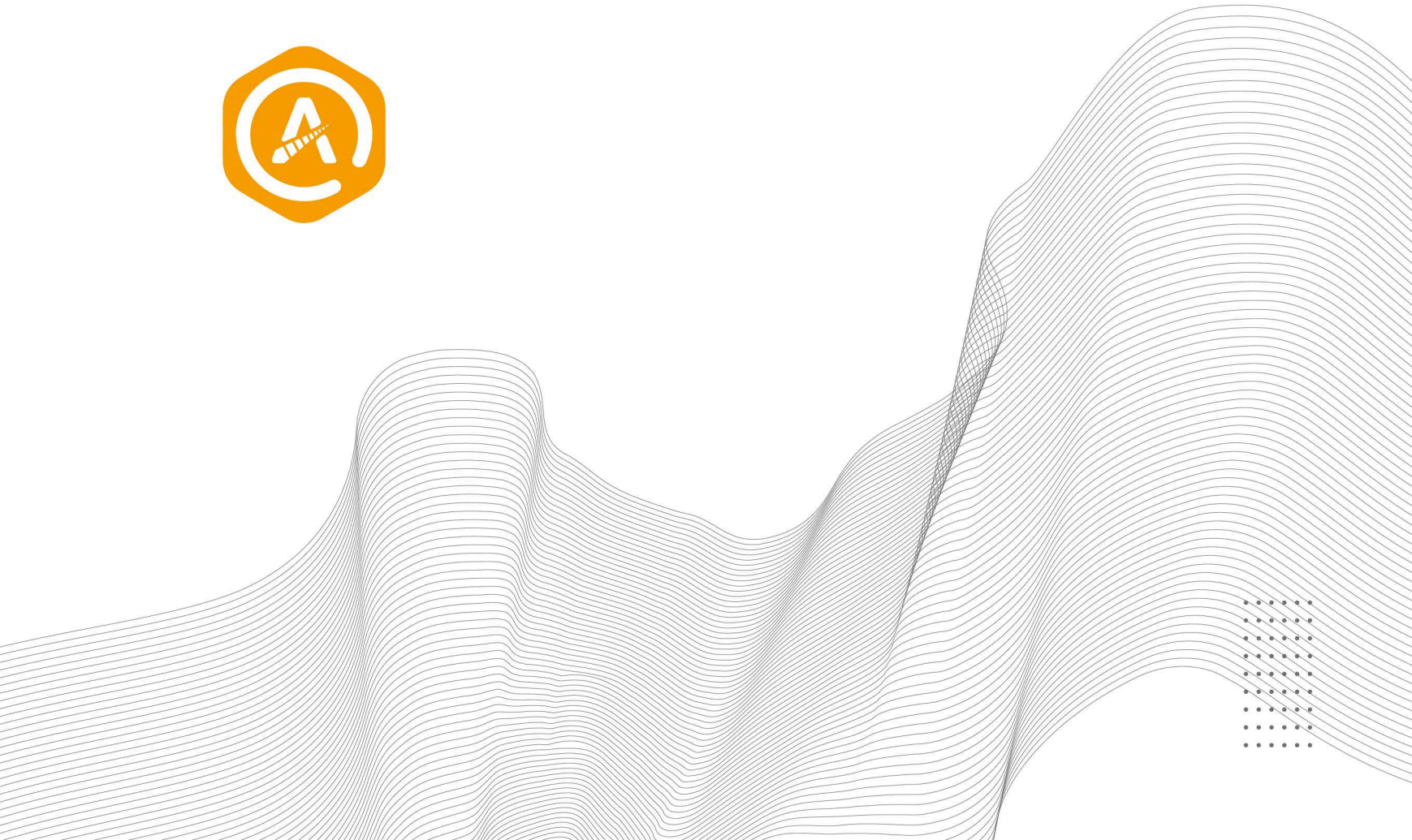




ARIA POLYMER
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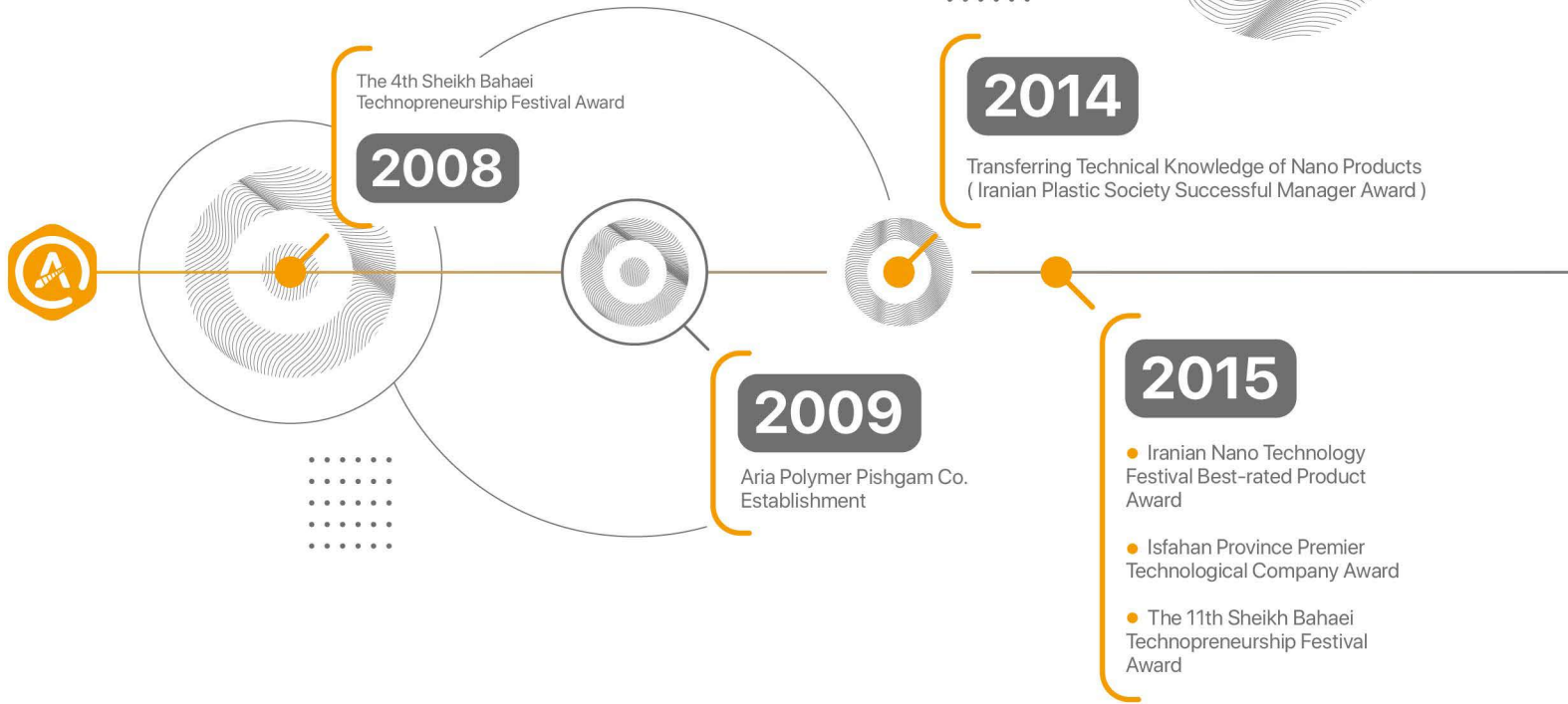


Aria Polymer, established in 2009, is a multinational enterprise to provide technology research and manufacture tailor-made additives and functional polymers.

Aria Polymer is one of few players in the region to develop series of products to meet domestic and international market needs, including **Maleic Anhydride Grafted Polymers** used as **Coupling Agent and Compatibilizer**, and **Tie Layer Adhesive** used in **Multilayer Structures**, e.g., **Multilayer Films, Pipes, Tubes**, etc. In addition to these high-tech products, Aria polymer manufactures a wide range of **Additive Masterbatches** to **improve specifications of different polymers**. Accordingly, our various products are widely used in automotive, energy, construction, medicals, packaging and consumer goods.

Holding **ISO 9001** and **10004** and numerous certificates, Food and Drug Compliance and Oil Ministry Confirmation, being a member of different associations in Plastic and Polymer fields, having a well-equipped internal lab, accessing a wide range of petrochemical companies and a powerful supply chain, are all juxtaposed to enable Aria Polymer to provide the customers with state-of-the-art products.

Timeline



Asian Science Park Association
Grand Prize

2016

- Selected Exporter of Iran Polymer Industry
- Excellence Award of Iran Polymer Industry

2022

2021

- Isfahan Province's Knowledge-Based Award
- Selected Exporter of Iran Polymer Industry

2030

70% Share of
Innovative Products
in Gross Sales



**ARIA
POLYMER**

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Aria GC HD-52518

Aria GC HD-EX5

Aria GC HD-EX3

Aria GC HD-F7000

Aria GC HD-5110

Aria HD-100 BLACK

Aria GC HD-3840 UA

Aria GC HD-BL3

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ARIA POLYMER

Products Guide



Aria Polymer Pishgam products are mainly classified in five categories, i.e. Additive Masterbatches, Maleic Anhydride Coupling Agents, Nano Additives and Tie Layer Adhesives. Being used in various industries, a better acquaintance with Aria Polymer products can help industry owners choose the most appropriate product.

Aria Polymer Products Guide provides an overview to display a functional introduction of products related to different industries.

Please contact our Commercial Department for further information.

Certification

Aria Polymer Pishgam Co.
has been found to conform to the Quality Management System Standard:

ISO 9001:2015

This Certification is valid for the following product or service range:
Manufacturing of Polymer Additive

Aria Polymer Pishgam Co.
has been found to conform to the Quality Management System Customer satisfaction- Guidelines for Monitoring and Measuring Standard:

ISO 10004:2018

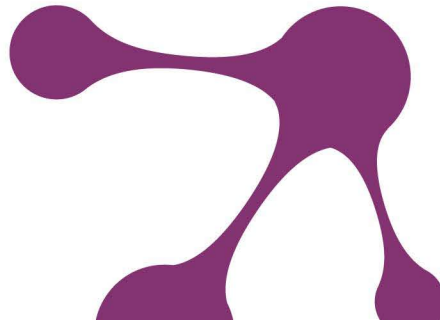
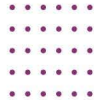
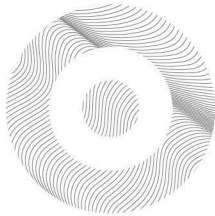
This Certification is valid for the following product or service range:
Manufacturing of Polymer Additive





Aria Comp Polyethylene

This compound contains polyethylene, modified calcium carbonate, and other additives. Masterbatches of calcium carbonate have become increasingly popular in many industries due to improving the production process and lowering costs. Furthermore, this product is environmentally friendly since it uses minerals in its composition.



| Aria GC HD-62N07

● Description

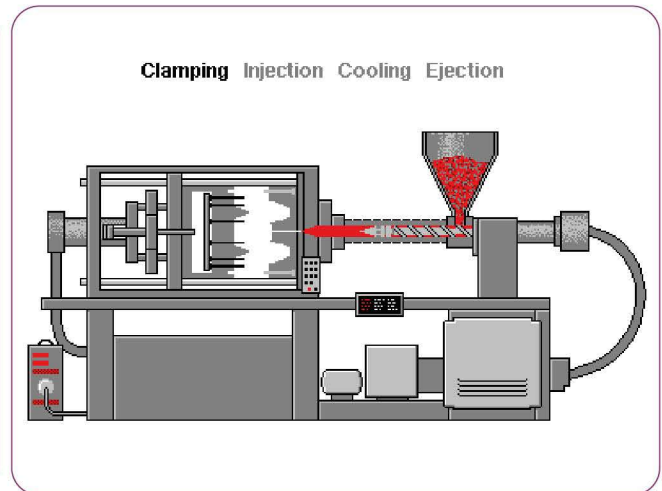
"Aria GC HD-62N07" is a injection-moulding grade high density polyethylene. Good impact strength, easy processing, high rigidity and Uv resistance make it especially suitable for usage in crates, pallets, seats and house holdware.

● Product Application

Injection Moulding Grade for Pallets, Boxes and Crates.

Properties

Typical Value	Method	Value
Melt Index	D1238	7
Density	D1505	0.962
F/E Ratio	ASTM D 1238	<30
Volatiles	ASTM D 1525	<0.05
Tensile Stress @ Yield	ASTM D 638	30
Tensile Stress @ Break	ASTM D 638	12
Elongation @ Break	ASTM D 638	850
Flexural	STM D 790	1500
Izod Impact Resistance	ASTM D 256	55
Contamination	BASEL MTM-17064 E	<40



| Aria GC HD-52518

● Description

"Aria GC HD-52518" is a HDPE copolymer for injection molding applications requiring a good balance between easy of processability and flowability and mechanical properties.

● Application

-Housewares, high fluidity
-Injection molding grade

Properties

Typical Value	Method	Unit	Value
Density	ASTM D 1505	(g/ml)	0.952
MFR(190°C/2.16kg)	ASTM D 1238	(g/10min)	18
Flexural modulus	ASTM D 790	(MPa)	1350
Notched Izod impact at 23°C	ASTM D 256/A	(J/m)	25
Vicat softening point	ASTM D 1525	(°C)	122



| Aria GC HD-EX5

● Description

"Aria GC HD-EX5" is a high density polyethylene with 1-Butene as co monomer. It is good toughness, High molar mass.

● Product Application

- Heave duty sacks, agricultural films, liners.
- Produce bags, stretch film

Properties

Typical Value	Method	Value
Mass density (23°C)	ISO 1183	0.949
Melt Flow Rate (190 C/5.0kg)	ISO 1133	0.28
Melt Flow Rate (190 C/21.16kg)	ISO 1133	8
FFR (5/21.6)	-	29



| Aria GC HD-EX3

● Description

"Aria GC HD-EX3" is a natural colored high density polyethylene with Butene-1 as comonomer. The product is classified as PE100 and shows good stress crack resistance properties (ESCR) combined with good impact strength.
Stabilization: Ca-Stearate, Zn-Stearate, Irganox1010, Irgafos168

● Product Application

- Pipe Extrusion PE100 Class
- Pressure pipe.
- Drinking water and gas pipes.
- Discharge pipes.
- Sewer pipes and their fittings.
- For injection moulded and other fittings.
- Sheets

Properties

Typical Value	Unit	Method	Value
MFR(190 °C/5Kg)	g/10min	ISO 1133	0.45 ± 0.05
MFR(190 °C/21.6Kg)	g/10min	ISO 1133	12.0 ± 3.0
FRR21.6/5	-	-	28± 4
Density	g/cm ³	ISO 1183	0.945 ± 0.002
Notched Impact Strength	kJ/m ²	ISO 179/1eA	> 12
Pipe Evaluation Hydrostatic Strength (80oc,4N/mm ²)	Hours	(DIN 8074 & DIN 8075 & ISO 1167)	1000 min.

| Aria GC HD-F7000

● Product Application

"Aria GC HD-F7000" is a Excellent mechanical strength and high stiffness Excellent processability (at high speed) Tissue-like film, garment/grocery/merchandise bags, disposal waste bags, counter bags, grocery sacks, trash bags

Properties

Typical Value	Method	Unit	Value
Melt flow rate	ISO 1133	g/10 min.	0.04
Density	ISO 1183	kg/m ³	952
Tensile Strength at yield	ISO 527-1, - 2	MPa	27
Tensile Strength at break	ISO 527-1, - 2	MPa	>24
Elongation at Break	ISO 527-1, - 2	%	>500
Charpy Impact strength	ISO 179-1	kJ/m ²	NB
Shore hardness	ISO 868	D scale	64
Stress cracking resistance	ASTM 1693	hr	>600
Melting temperature	ISO 11357	°C	131
Vicat softening temperature	ISO 306	°C	124



| Aria GC HD-5110

● Description

“Aria GC HD-5110” is a high molecular weight, high-density polyethylene with broad molecular weight distribution and 1-hexene as a co-monomer, specially developed for producing thin films with excellent strength and rigidity. This product is suitable for manufacturing of high strength grocery sacks, shopping bags and high quality thin films for uni/multi-wall packaging. Films produced with this grade can be readily treated and printed to give high quality graphics.

● Product Application(s)

Packaging Film

Properties

Typical Value	Value	Method
Density	951	ISO 1183
MFR (190°C/21.6kg)	10	ISO 1133
Tensile Modulus	1050	ISO527
Tensile Stress at Yield	26	ISO 527-1
Tensile Stress at Yield	10	ISO 527-1
Melting Point	132	ISO 3146
Vicat Temp,(A50,50°C/h,10N)	127	ISO 306
Ash content	5	ASTMD 5630-94



| Aria HD-100 BLACK

● Description

"Aria HD-100 BLACK" pipes offer durable and flexible solutions for a wide range of applications. Polyethylene piping is resistant to corrosion in all ground conditions and its flexibility allows it to withstand ground movements. No protective layers or finishes are required.

● Product Application

under pressure polyethylene pipes and fittings (PE gas pipes sewerage and irrigation pipe)



Properties

Typical Value	Value	Method
Melt flow index (190=C/5kg)	ISO1133-A, isiri1-6980	0.0.3 ± 0.24gr/10min
Melt flow index (190=C/2.16kg)	ISO1133-A, isiri1-6980	---
Density (Method A=metanol 23=C)	ISO1-1183, isiri1-7090	0.005 ± 0.950gr/cm³
Carbon Black Content	ISO 6964	2.25 ± 0.25
Ash content		0.02 ± 0.02
Disp/Carbon Black	ISO 6964	≤ 3
Elongation at Break		≤ % 750
Yield Strength		≤ 20 Mpa
Tensile Strength at Break	ISO6964	≤ 25 Mpa
Oxidation Induction Time 210=C	ISO11357	≤ 30 min
Melting Point	ISO6-11357	140=C
Esccr (50=C . A :10 % Igepal Co-630)	ASTM D1693	≤ 1000 hr
Total Volatiles	EN 12099	179mg/kg

| Aria GC HD-3840 UA

● Description

"Aria GC HD-3840 UA" is high density polyethylene copolymer containing butene-1 (C4) as co monomer. It is suitable for use as rotational molding applications.

● Product Application

General purpose rotomolded items, septic tanks, recycling tanks.

Properties

Typical Value	Value	Units	Method
Melr Flow Index(190°C/2.16kg)	4	g/10 min	ASTM D 1238
Density	0.938	gr/cm ³	ASTM D 1525
Yellowness Index	-1	-	ASTM E 313
Whiteness Index	60	-	ASTM E 313
Contamination	5	NO.	BPI37
Vicat Softening	115	°C	ASTM D-1525
Tensile Stress at Yield	15	MPA	ASTM D-638
Elongation at Break	900	%	ASTM D-638
ESCR (Igepal 10% F50/23°C)	350	HR	ASTM D-1693
Charpy Impact	18	kJ/M ²	ASTM D-6110



| Aria GC HD-BL3

● Description

"Aria GC HD-BL3" is a high density polyethylene with 1-Butene as co monomer. It is high density and stiffness, good ESCR, high rigidity, good flowability and impact strength.

● Product Application

- Small blow moulding
- Bottles
- Containers (up to 5 lit)
- Packaging of pharmaceuticals & surfactants

Properties

Typical Value

Value

Method

MFI (190 c, 5 kg)

1.8

ISO 1133

Density

0.995

ISO 1183

Impact strength (23 c)

10

ISO179/1eA

Ash content

5

ASTM D 5630-94



| Aria GC LD-2420E02

● Description

"Aria GC LD-2420E02" is a low-density density polyethylene. It is a homo polymer with high clarity suitable for usage in cast, fine shrink and high clarity films.

Properties

Typical Value	Value	Unit	Method
Density	0.002±0.923	g/ml	ISO 1183A
Melt Flow Index @190oc /2.16kg	0.2 ± 1.7	g/10 min	ASTM 1133
Impact strength (23°C)	26	KJ/ M	ASTM D4272
Tear strength (TD)	25	KN/ M	ASTM D2-6383
Tear strength (MD)	60	KN/ M	ASTM D2-6383
Strain at break (TD)	>500	%	ISO 527
Strain at break (MD)	>200	%	ISO 527
Yield stress (TD)	11	Mpa	ISO 527
Yield stress (MD)	13	Mpa	ISO 527
Ash content	3	%	-

| Aria GC LD-L2102TX00

● Description

"Aria GC LD-L2102TX00" uses For general purpose film without additives.used in a wide range of widths and thicknesses for pouches,bags,liners and lamination film.

Properties

Test/Composition	Value	Method
Melt Flow Rate	1.9	-
Density	921	-
Gloss (45°)	50	ASTMD 2457
Haze	11	ASTMD 1003A
Clarity	29	SABTEC method
Impact strength	26	ASTMD 4272
Tear strength TD	25	-
Tear strength MD	60	-
Yield stress TD	11	-
Yield Stress MD	13	-
Tensile Stress at break TD	20	-
Ash content	5	ASTMD 5630-94



| Aria GC LD-LTM2119X

● Product Application

"Aria GC LD-LTM2119X" is suitable for general purpose film and for lamination.

Properties

Typical Value	Unit	Method	Value
MFI (190 OC /2 .16 Kg)	dg/min	ISO 1133	1.9
Density	Kg/m3	ISO 1183 (A)	921
Impact strength	KJ/m	ASTM D 4272	26
Modulus of Elasticity (TD)	MPa	ISO 527	200
Modulus of Elasticity (MD)	MPa	ISO 527	190
Coefficient of friction	-	ASTM D 1894	>1
Blocking	g	SABTEC method	20
Re-blocking	g	SABTEC method	100

Aria GC LLD-22B02

Description

"Aria GC LLD-22B02" is a linear low density polyethylene with 1-Butene as comonomer. It has high stiffness making it suitable for usage in high stiffness blown and cast films, blending and lamination.

Product Application

- Blown Films
- Blending

Properties

Typical Value	Unit	Method	Value
MELT INDEX (190°C/2.16kg)	g/10min	ASTM D- 1238	2
Density(23°C)	g/cc	ASTM D-1505	0.922
F/R Ratio	-	ASTM D-1238	<30
DART IMPACT	MPa	ASTM D-1709	60
TENSILE STRESS @YEILD TD/MD	MPa	ASTM D-882	13/12
TENSILE STRESS @ BREAK TD/MD	%	ASTM D-882	38/70
ELONGATION @ BREAK TD/MD	%	ASTM D-882	1000/850
HAZE	%	ASTM D-1003	13
GLOSS(60°)	-	ASTM D-2457	90

| Aria GC LLD-0209

● Description

"Aria GC LLD-0209" is a LLDPE copolymer with butene as comonomer which contains antioxidant. It is recommended for general purpose applications. It is suitable for blending with conventional LDPE. Film made from pure LL 02090 AA has the following advantages over conventional LDPE:
Better sealing, higher puncture resistance.
Greater drawdown capability.
Higher tensile strength.
Neutralizer: Calcium Stearate.
Antioxidant: Irganox1010, Irganox168

● Product Application

- Food Grade
- Heavy duty sacks, agricultural films, liners.
- Produce bags, stretch film

● Properties

Typical Value	Value	Method
MFR (190°C/2.16kg)	0.9	ISO 1133
Density	920	ISO 1183
Tensile Strength at Yield MD/TD	11/10	ISO 527
Tensile Strength at Break MD/TD	32/41	ISO 527
Elongation at Break MD/TD	840/620	ISO 527
Tear Strength MD/TD	370/145	ASTM D1922
Dart Drop Impact	150	ASTM D1709



Aria Comp Polypropylene

Aria PP Compounds, are group of compounds which are containing polypropylene, calcium carbonate and other additives. This compound is widely being used in multiple areas, including films, pipes, textiles, automotive parts, and more.

| Aria GC PP/CaCO3

● Product Application

"Aria GC PP/CaCO3" is based on polypropylene and calcium carbonate. It is used as a filler and for reinforcement. It helps reducing the production cost by increasing the quality of the product during production.



Properties

Product	Process	Applications	Color	Type	Appearance
PP reinforced with %5-20 calcium carbonate	Injection Extrusion Blow molding Rotational molding	Automobiles Household appliances Furniture Electrical appliances Agriculture etc.	Transparent Red Blue White Black Yellow	Virgin Recycleed	Granule Powder

| Aria GC HP-510L

● Description

"Aria GC HP-510L" is a polypropylene homo-polymer with good flow properties and is particularly suitable for the extrusion of film yarn, monofilaments, cast film and sheet. Moplen HP510L combines outstanding process ability with good mechanical properties. Aria GC HP-510L is particularly suitable to produce film yarn with the cast film process. Film yarn of Aria GC HP-510L is suitable for baler twins, packaging twins and ropes. Aria GC HP-510L is well suited for the production of monofilament used for instance in brush and broom filling and technical applications. Other applications of Aria GC HP-510L are monolayer or co-extruded film for packaging, thin sheet for stationary folders and sheets for thermoforming. Aria GC HP-510L is also used for the extrusion of straws.

Properties

Property	Value	Units	Test Method
Melt Flow Rate (230 °C, 2.16 kg)	6	g/10 min	ASTM D 1238
Vicat softening point (9.8N)	155	°C	ASTM D 1525
H.D.T (0.46 MPa)	95	°C	ASTM D648
Flexural modulus	1500	MPa	ASTM D 790
Tensile strength at yield	35	MPa	ASTM D 638
Elongation at yield	13	%	ASTM D 638
Izod impact strength (notched) at 23 °C	40	J/m	ASTM D 256

* Typical values not to be construed as specifications.

● Product Application

Yarn
Cast film
Monofilament
Mono-layer or co-extruded film
Straw



| Aria GC HP-550J

● Description

"Aria GC HP-550J" is a polypropylene homopolymer particularly suitable for the extrusion of sheet for thermoforming, film yarn and monofilament. This grade combines outstanding processability with good mechanical properties. "Aria GC HP-550J" is designed for the production of films that can be converted into stretched tapes for weaving applications. Textile film yarns with a denier count of not more than 1100 to 1200 are used for the production of carpet backings, bags, industrial fabrics, mats and artificial grass. Film yarn with a denier count ranging from 3000 to 28000 is used for baler twines, packaging twines and ropes. "Aria GC HP-550J" is suitable for food contact

Properties

Property	Value	Units	Test Method
Melt Flow Rate (230 °C, 2.16kg)	3.2	g/10 min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Flexural Modulus	1550	MPa	ASTM D790
Tensile Strength at Yield	35	MPa	ASTM D638
Tensile Elongation at Yield	12	%	ASTM D638
Izod Impact Strength (notched) at 23 °C	55	J/m	ASTM D256
Rockwell Hardness	102	R Scale	ASTM D785
Vicat softening point (10N)	156	oC	ASTM D1525
H.D.T. (0.46 Mpa)	94	oC	ASTM D648
Accelerated oven ageing in air at 150 °C	360	Hours	ASTM D3012

● Product Application

Stiff sheet for high quality thermoformings such as vending cups, packaging for dairy products and trays for fruit, biscuits and chocolates Film yarn, raffia, tapes, strapping Carpet backings, bags, industrial fabrics, mats and artificial grass Baler twines, packaging twines and ropes Brush and broom filling and technical applications Nets for various purposes



| Aria GC HP-Z30S

● Description

"Aria GC HP-Z30S" is a high melt flow homopolymer for the production of CF, BCF & staple fibres at medium to high spinning speeds. "Aria GC Z30S" is suitable for low denier staple fibres for nonwoven fabrics, diapers, medical-sanitary applications & wipes. Another typical application is high tenacity continuous filament for straps for backpacks, sport bags, bulk bags & for safety belts. Continuous filament with medium tenacity is used for upholstery & sportswear. Another typical application of "Aria GC Z30S" is the extrusion of nets for various purposes. "Aria GC Z30S" is also suited for the production of bulked continuous filament for carpets. "Aria GC Z30S" is suitable for food contact.

Properties

Property	Value	Units	Test Method
MFR @ 230°C , 2.16 Kg	25	g/10 min	D-1238/L
Flexural Modulus	1500	Mpa	D790
Notched Izod Impact @ 23°C	30	J/m	D256
Tensile Strength @ Yield	32	Mpa	D-638
Elongation @ Yield	13	%	D-638
Vicat Softening Point , 10N	152	°C	D1525
HDT (0.46 N/mm ²)	94	°C	D648
Rockwell Hardness	100	R.Scale	D785
Oven Ageing @ 150°C	150	Hours	D3012

* Values shown are averages & are not to be considered as product specifications.

● Product Application

Yarn
Cast film
Monofilament
Mono-layer or co-extruded film
Straw



● Notes





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