



There Is Always a Better Way

ARIA POLYMER

Product Catalogue for the **Compounding** Industry



THERE IS ALWAYS A BETTER WAY...



ARIA POLYMER

ARIA POLYMER is a multinational enterprise to provide technology research and manufacture top-notch additives and functional polymers, founded in 2009.

ARIA POLYMER is one of the 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 ADHESIVES** 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:

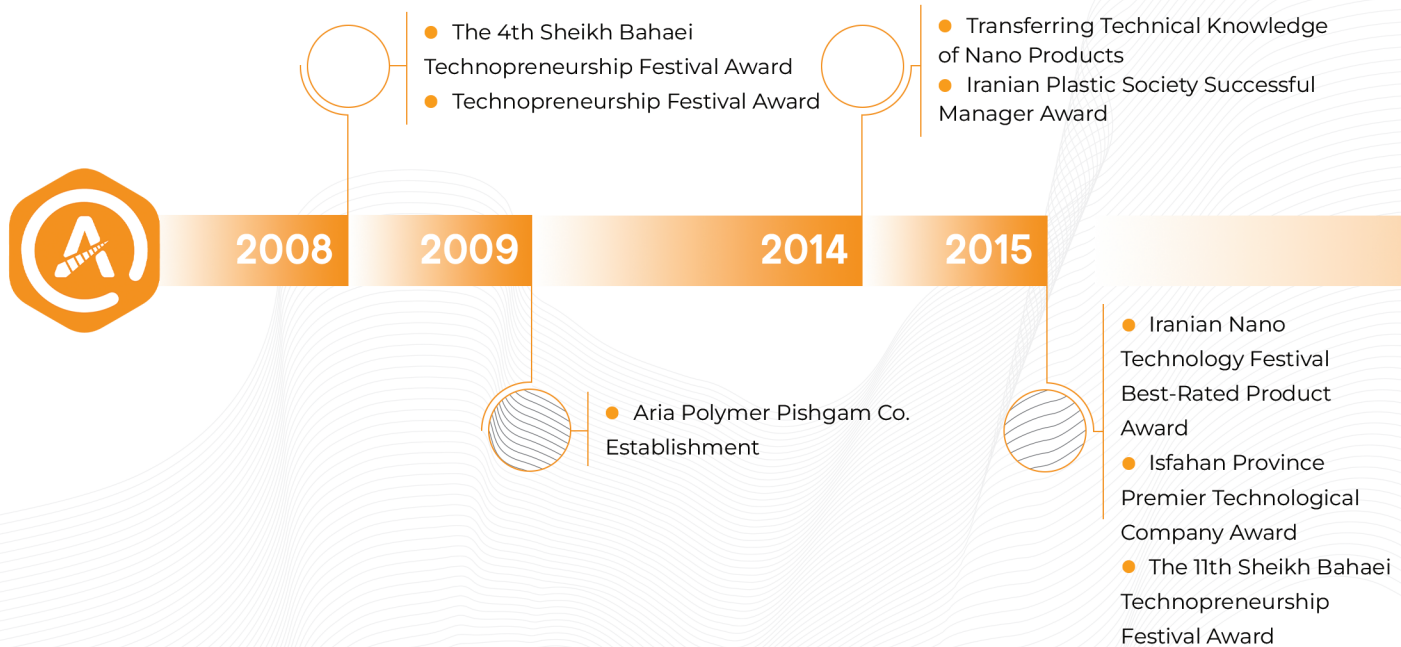
Automotive Compounds and Parts, Pipes, Packaging, Building and Civil Constructions, Medical Tools;
and Consumer Goods.

Holding **ISO 9001**, **ISO 10004** and **ISO 17025**, Food and Drug Compliance, 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, accessing university, knowledge poles and gifted graduated students, are all juxtaposed to enable ARIA POLYMER to provide the customers with state-of-the-art products.

And all these make us believe **THERE IS ALWAYS A BETTER WAY...**

Aria Polymer: from the Beginning to 2030

Timeline



2016



- Asian Science Park Association Grand Prize

2021



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

2022



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

2030

70% Share of
Innovative Products
in Gross Sales

ADDITIVE MASTERBATCH

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Aria Add 2161
Optical Brightener
Masterbatch

Additive Masterbatch

ARIA ADD

ARIA ADD is a category of concentrated mixture of additives dispersed in a carrier resin, designed to impart specific properties or functionalities to plastic products. These additives are incorporated during the manufacturing process to enhance the plastic's performance, durability, or appearance. Essentially, it's a convenient way to introduce desired characteristics into plastics without directly handling and dispersing the often difficult-to-process additives. **ARIA ADD** products are widely used in every typical plastic process, such as injection molding, blow molding and extrusion molding.

Anti-UV Masterbatch Aria Add 2176

• Description

ria Add 2176 is a polyethylene-based masterbatch designed to provide longlasting protection for PE products. It is a light stabilizer masterbatch containing a mixture of HALS (Hindered Amide Light Stabilizer) & UV absorbers.



• Product Application

UV protection, especially for PE films, sheets & parts

• Advantages

- Increasing product lifetime
- Increasing color stability
- Preserving physical and mechanical degradation

• Technical Specifications

Properties	Value	Method
Appearance	Yellowish Granules	-
Carrier Resin	LDPE	-
Active Ingredients	>20%	-
Density	0.92±0.01 g/cm ³	ASTM D792
Melt Flow Index @190°C /2.16kg	7±2.5 g/10min	ASTM D1238
Usage Level	0.5-10%	-

Anti-UV Masterbatch

Aria Add 2273

• Description

Aria Add 2273 is a polypropylene-based masterbatch designed to provide long-lasting protection for PP films, sheets & parts. It is a light stabilizer masterbatch containing a mixture of HALS (Hindered Amide Light Stabilizer) & UV absorbers

• Product Application

UV protection for PP parts, packaging, especially woven bags & nonwoven fabrics

• Advantages

- Increasing product lifetime
- Increasing color stability
- Preserving physical and mechanical degradation



• Technical Specifications

Properties	Value	Method
Appearance	Granules	-
Carrier Resin	PP	-
Active Ingredients	>20%	
Density	0.91±0.01 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	5±2 g/10min	ASTM D1238
Usage Level	1-5%	

White Masterbatch Aria Add 2113-1

• Description

Aria Add 2113-1 is a white masterbatch containing 70% finely dispersed white pigment and PE carrier resin, which provides optimum opacity for blown and cast films, extrusion, and injection parts

• Product Application

White masterbatch for film, extrusion, tube, and injection

• Advantages

- Well Dispersed
- Very high color strength
- Excellent Whiteness
- Good Melt strength



• Technical Specifications

Properties	Value	Method
Appearance	White Granules	-
White Pigment	70±2%	ASTM D4218
Carrier Resin	PE	-
Density	1.9±0.2 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	30±10 g/10min	ASTM D1238
Moisture	Max 0.1%	ASTM D644
Usage Level	According to condition and requirements	

White Masterbatch

Aria Add 2113-4

• Description

Aria Add 2113-4 is a white masterbatch containing more than 60% finely dispersed white pigment, PE carrier resin, and Optical brightener, which provides optimum opacity for blown and cast films, extruded sheet, and injection or blow molded parts

• Product Application

White masterbatch for Film, Injection, and extruded sheet

• Advantages

- Well Dispersed
- Excellent Hiding Power
- Excellent Whiteness
- Good Melt strength



• Technical Specifications

Properties	Value	Method
Appearance	Bluish Color Shade Granules	
White Pigment	60±2%	ASTM D4218
Carrier Resin	PE	-
Density	1.8±0.1 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	45±10 g/10min	ASTM D1238
Moisture	Max 0.1%	ASTM D644
Usage Level	According to condition and requirements	

White Masterbatch Aria Add 2113-5

• Description

Aria Add 2113-5 is a white masterbatch of 60% finely dispersed white pigment, which provides optimum opacity for Rotational molded parts, blown and cast films, and injection or blow molded parts

• Product Application

White masterbatch for Rotational molded parts

• Advantages

- Well Dispersed
- Excellent Hiding Power
- Excellent Whiteness
- Good Melt strength



• Technical Specifications

Properties	Value	Method
Appearance	Bluish White Granules	
White Pigment	60±2%	ASTM D4218
Carrier Resin	PE	-
Density	1.7±0.1 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	45±5 g/10min	ASTM D1238
Moisture	Max 0.1%	ASTM D644
Usage Level	According to condition and requirements	

White Masterbatch

Aria Add 2114

• Description

- Aria Add 2114 is a well-dispersed polyethylene based masterbatch
- Aria Add 2114 has very high color strength and good flow properties

• Product Application

White masterbatch for PE

• Advantages

- Well Dispersed
- Excellent Hiding Power
- Excellent Whiteness
- Good Melt strength



• Technical Specifications

Properties	Value	Method
Appearance	White Granules	-
White Pigment	70±2%	ASTM D4218
Carrier Resin	PE	-
Density	1.8±0.2 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	3±1 g/10min	ASTM D1238
Moisture	Max 0.1%	ASTM D644
Usage Level	According to condition and requirements	

Antioxidant Masterbatch

Aria Add 2130

• Description

Aria Add 2130 is an antioxidant masterbatch based on PE for the thermal stabilization of various polymers. This concentrate is containing a mixture of primary and secondary antioxidants

• Product Application

Antioxidant for general purpose applications

• Advantages

- Improve melt flow control
- Lower initial color and outstanding color maintenance
- Improved compatibility of additive with matrix
- Avoid oxidative degradation in higher temperatures

• Technical Specifications



Properties

Value

Method

Appearance	Milky Granules	-
Active Ingredients	>10%	-
Carrier Resin	HDPE	-
Density	0.94±0.02 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	7±3 g/10min	ASTM D1238
Usage Level	1-3%	

MFI Modifier Masterbatch

Aria Add 2445

Description

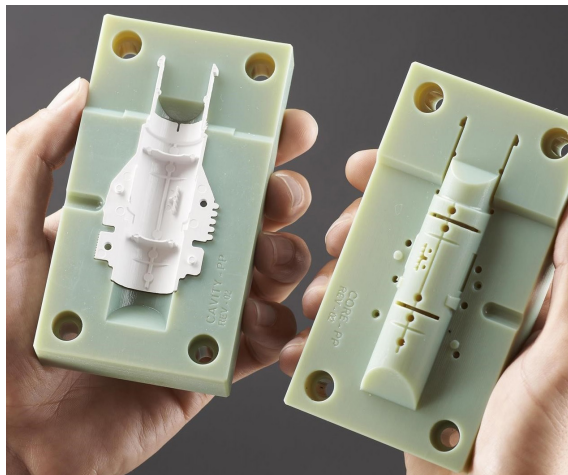
- Polypropylene based masterbatch reactive extrusion
- MFI modifier and viscosity reducer masterbatch

Product Application

PP Melt Flow increase as masterbatch

Advantages

- Enhance melt blown process
- Increase MFI of PP compounds
- Increase production rate
- Better and softer surface properties of melt blown products
- Reduce warpage
- Improve mixing of pigment/color and filler in PP matrix



Technical Specifications

Properties	Value	Method
Appearance	White Granules	-
Carrier Resin	PP	-
Density	0.9±0.01 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	>70 g/10min	ASTM D1238
Usage	0.5-10%	-

MFI Modifier Masterbatch

Aria Add 2440T136

• Description

- Polypropylene based masterbatch reactive extrusion
- MFI modifier and viscosity reducer masterbatch

• Product Application

PP Melt Flow increase as masterbatch

• Advantages

- Enhance melt blown process
- Increase MFI of PP compounds
- Increase production rate
- Better and softer surface properties of melt blown products
- Reduce warpage
- Improve mixing of pigment/color and filler in PP matrix



• Technical Specifications

Properties	Value	Method
Appearance	Phosphoric Granules	
Carrier Resin	PP	-
Density	0.9±0.01 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	≥100 g/10min	ASTM D1238
Usage Level	1-10%	-

Desiccant Masterbatch Aria Add 2180

• Description

Aria Add 2180 is a desiccant masterbatch designed to absorb the moisture in plastics and nylon in order to eliminate moisture-related problems

• Product Application

Desiccant masterbatch

• Advantages

- Improves product quality and yield
- Increase productivity and reduce energy consumption
- Reduce prevention of moisture-related problems, including lacing and porosity of the molded problem
- Minimizes down glossing and hazing under high humidity application conditions



• Technical Specifications

Properties	Value	Method
Appearance	Granules	-
Active Ingredients	>70%	-
Carrier Resin	PE	-
Density	1.9±0.1 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	1±0.5 g/10min	ASTM D1238
Usage	0.5-1.5%	-





Coupling Agent

ARIA COUPLE

ARIA COUPLE has revolutionized numerous industries, due to its functionalized nature. It is a Maleic Anhydride (MAH) grafted polymer in granular form. These polar materials have been specifically designed to provide well dispersion and compatibility between non-polar polymers, e.g. polyolefins and fillers such as wood, glass fiber, ATH, Talc, etc. in addition, **ARIA COUPLE** is also used as an impact modifier in Polyamide compounds.

ARIA COUPLE includes various high-tech products based on **PE, PP, ABS and TPE**.

Maleic Anhydride Grafted Polypropylene

Aria Couple 1433

Description

- Maleic anhydride functionalized polyolefin produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & wood plastic composites

Product Application

COUPLING AGENT	In wood flour reinforced polymer composites (WPC)	1.5-3%
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Advantages

DISPERSION	Achieve suitable dispersion and distribution of wood in polymer matrix
MECHANICAL PROPERTIES	Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus
OTHER	• Eliminate output variation • Increase permeability of polyolefin • Achieve dimensional stability • Increase surface smoothness of final products

Technical Specifications

Properties	Value	Method
Density	0.91 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	15±5 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%



Maleic Anhydride Grafted Polypropylene

Aria Couple 1431

• Description

- Maleic anhydride functionalized polypropylene produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & polar polymers, fillers, etc

• Product Application

COUPLING AGENT FOR PP &

- Reinforcing materials e.g., GF in PP/GF compounds 1.5-2.5%
- Fillers e.g., CaCo3 polyolefin-based compounds 1.5-3%

COMPATIBILIZER BETWEEN PP &

- Polar polymers e.g., polyamide 1.5-3%

• Advantages

DISPERSION

Achieve optimum dispersion & distribution of polar polymer, fillers, starch, glass fiber, etc. in non-polar polymer matrix

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in polyolefin & biodegradable containers

OTHER

- Eliminate output variation
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final products

• Technical Specifications

Properties	Value	Method
Density	0.91 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	75±25 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%



Maleic Anhydride Grafted Polypropylene

Aria Couple 1432

Description

- Maleic anhydride functionalized polypropylene produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & polar polymers, fillers, etc.

Product Application

COUPLING AGENT FOR PP &

- Reinforcing materials e.g., GF in PP/GF compounds 1.5-2.5%
- Fillers e.g., CaCo₃ polyolefin-based compounds 1.5-3%

COMPATIBILIZER BETWEEN PP &

- Polar polymers e.g., polyamide 1.5-3%

Advantages

DISPERSION

Achieve optimum dispersion & distribution of polar polymer, fillers, starch, glass fiber, etc. in non-polar polymer matrix

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in polyolefin & biodegradable containers

OTHER

- Eliminate output variation
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final products

Technical Specifications

Properties	Value	Method
Density	0.91 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	75±25 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%



Maleic Anhydride Grafted Polypropylene

Aria Couple 1432T112

Description

- Maleic anhydride functionalized polypropylene produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & polar polymers, fillers, etc.

Product Application

COUPLING AGENT FOR PP &

- Reinforcing materials e.g., GF in PP/GF compounds 1.5-2.5%
- Fillers e.g., CaCo3 polyolefin-based compounds 1.5-3%

COMPATIBILIZER BETWEEN PP &

- Polar polymers e.g., polyamide 1.5-3%

Advantages

DISPERSION

Achieve optimum dispersion & distribution of polar polymer, fillers, starch, glass fiber, etc. in non-polar polymer matrix

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in polyolefin & biodegradable containers

OTHER

- Eliminate output variation
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final products

Technical Specifications

Properties	Value	Method
Density	0.91 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	75±25 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%



Maleic Anhydride Grafted Polypropylene

Aria Couple 1432T188

• Description

- Maleic anhydride functionalized polypropylene produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & polar polymers, fillers, etc.

• Product Application

COUPLING AGENT FOR PP &

- Reinforcing materials e.g., GF in PP/GF compounds 1.5-2.5%
- Fillers e.g., CaCo3 polyolefin-based compounds 1.5-3%

COMPATIBILIZER PP &

- Polar polymers e.g., polyamide 1.5-3%

• Advantages

DISPERSION

Achieve optimum dispersion & distribution of polar polymer, fillers, starch, glass fiber, etc. in non-polar polymer matrix

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in polyolefin & biodegradable containers

OTHER

- Eliminate output variation
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final products

• Technical Specifications

Properties	Value	Method
Density	0.91 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	130±20 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%



Maleic Anhydride Grafted Polypropylene

Aria Couple 5600

Description

- Maleic anhydride functionalized polyolefin produced by reactive extrusion
- Scratch resistance in talc & CaCO₃ filled polyolefin, TPE or rubber compounds

Product Application

ANTI-SCRATCH
MASTERBATCH IN

Talc & CaCO₃ filled
polyolefins compounds

Usage

1.5-3%

Advantages

DISPERSION

Achieve suitable dispersion and distribution of filler in polymer matrix

MECHANICAL
PROPERTIES

Mechanical properties improvement

OTHER

- No negative influence on color of part surfaces
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final products

Technical Specifications

Properties	Value	Method
Density	0.91 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	17±5 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%



High Amorphous Ethylene Copolymer Functionalized by Maleic Anhydride

Aria Couple 1946

Description

- Maleic anhydride functionalized high amorphous ethylene copolymer produced by reactive extrusion
- It has been primarily designed as an impact modifier for nylons and coupling agents in filled polyamide compounds with high mechanical properties

Product Application

COUPLING AGENT FOR PA	Fillers and reinforcing agents, e.g., GF and other mineral fillers in nylon compounds	1.5-5%
IMPACT MODIFIER	Polyamides (6 and 6,6) and their compounds	5-15%
COMPATIBILIZER	PA, PBT, and polyolefin compounds	1.5-5%



Usage

Technical Specifications

Properties	Value	Method
Density	0.9 g/cm ³	ASTM D792
Melt Flow Index @190°C/5kg	2-6 g/10min	ASTM D1238
Maleic Anhydride Graft Level	Very High*	Titration Method

* Medium 0.25-0.5 wt.%, High 0.5-0.7 wt.%, Very High 0.7-0.9 wt.%

Advantages

DISPERSION

- Functions as a coupling agent between reinforcing materials such as glass fibers, mineral fillers, and polyamide to achieve superior mechanical properties
- Functions as a coupling agent between PBT & glass fibers for high mechanical properties
- Functions as an impact modifier for toughening nylon products such as PA6, PA66 & etc.

MECHANICAL PROPERTIES

Improve mechanical properties, e.g., tensile strength, impact resistance & flexural modulus in polyamide and also polyamides compounds

OTHER

- Eliminate output variation
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final products

High Amorphous Ethylene Copolymer Functionalized by Maleic Anhydride

Aria Couple 1946T129

• Description

- Maleic anhydride functionalized high amorphous ethylene copolymer produced by reactive extrusion
- It has been primarily designed as an impact modifier for nylons and coupling agents in filled polyamide compounds with high mechanical properties

• Product Application

COUPLING AGENT FOR PA	Fillers and reinforcing agents, e.g., GF and other mineral fillers in nylon compounds	1.5-5%
IMPACT MODIFIER	Polyamides (6 and 6,6) and their compounds	5-15%
COMPATIBILIZER	PA, PBT, and olyolefin compounds	1.5-5%



• Technical Specifications

Properties	Value	Method
Density	0.9 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	2-6 g/10min	ASTM D1238
Maleic Anhydride Graft Level	Very High*	Titration Method

*Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%, Very High > 1.0wt%

• Advantages

DISPERSION

- Functions as a coupling agent between reinforcing materials such as glass fibers, mineral fillers, and polyamide to achieve superior mechanical properties
- Functions as a coupling agent between PBT & glass fibers for high mechanical properties
- Functions as an impact modifier for toughening nylon products such as PA6, PA66 & etc.

MECHANICAL PROPERTIES

Improve mechanical properties, e.g., tensile strength, impact resistance & flexural modulus in polyamide and also polyamides compounds

OTHER

- Eliminate output variation
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final Products

High Amorphous Ethylene Copolymer Functionalized by Maleic Anhydride

Aria Couple 1947

• Description

- Maleic anhydride functionalized high amorphous ethylene copolymer produced by reactive extrusion
- This grade has been specifically developed to increase the impact resistance of polyamide compounds

• Product Application

COUPLING AGENT

Fillers and reinforcing agents, e.g., GF and other mineral fillers in nylon and compounds

1.5-5%

IMPACT MODIFIER

For polyamide-based compounds

5-12%



• Technical Specifications

Properties	Value	Method
Density	0.89 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	5-8 g/10min	ASTM D1238
Maleic Anhydride Graft Level	Very High*	Titration Method

* Medium 0.25-0.5wt%, High 0.5-0.7wt%, Very High 0.7-0.9 wt.%.

• Advantages

DISPERSION

Low viscosity of this product reduces the size of its dispersed particle sizes in low impact resistant polymer matrix. It improves impact resistance while keeping other properties as good as raw material

MECHANICAL PROPERTIES

Enhance mechanical properties, e.g., tensile strength, impact resistance & flexural modulus in polyamide and polyamides compound

OTHER

- Eliminate output variation
- Increase permeability of product
- Achieve dimensional stability
- Increase surface smoothness of final products

Maleic Anhydride Grafted Acrylonitrile Butadiene Styrene (ABS)

Aria Couple 1732

• Description

- Maleic anhydride functionalized ABS produced by reactive extrusion
- Coupling agent & compatibilizer between ABS & polar polymers, fillers and reinforcing agents

• Product Application

COUPLING AGENT FOR ABS &

- Reinforcing Materials e.g., GF in ABS compounds 1.5-5%
- Fillers e.g., Talc, pigments and other additives 1.5-5%

COMPATIBILIZER BETWEEN ABS &

- Polar polymers e.g., Polycarbonate 3.5-7.5%

• Advantages

DISPERSION

Function as a coupling agent between reinforcing materials such as glass fibers and ABS to achieve good mechanical properties

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in non-polar polymers & biodegradable containers

OTHER

Eliminate output variation and achieve imensional stability

• Technical Specifications

Properties	Value	Method
Density	1.06 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	12±4 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%



Maleic Anhydride Grafted High Density Polyethylene

Aria Couple 1141

Description

- Maleic anhydride functionalized polyethylene produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & polar polymers, fillers and reinforcing agents

Product Application

COUPLING AGENT FOR PE OR PVC &

- Reinforcing materials e.g., wood in wood-plastic composites
- Fillers e.g., starch in biodegradable polyolefin compounds

1.5-5%

COMPATIBILIZER FOR PE &

- For polyamide-based compounds

5-12%

Advantages

DISPERSION

Achieve optimum dispersion & distribution of polar polymer, fillers, starch, glass fiber, etc. in non-polar polymer matrix

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in polyolefin & biodegradable containers

OTHER

- Eliminate output variation
- Increase permeability of product
- Achieve dimensional stability
- Increase smoothness of final products

Technical Specifications

Properties	Value	Method
Density	0.945 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	5-8 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%



Maleic Anhydride Grafted High Density Polyethylene

Aria Couple 1142

• Description

- Maleic anhydride functionalized polyethylene produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & polar polymers, fillers, and reinforcing agents

• Product Application

COUPLING AGENT FOR PE or PVC

- Reinforcing materials, e.g., wood in wood plastic composites 1.5-5%
- Fillers, e.g., starch in biodegradable polyolefin compounds 1.5-5%

COMPATIBILIZER BETWEEN PE &

- Polar polymers e.g., polyamide & PET especially in recycling applications 4-8%



• Technical Specifications

Properties	Value	Method
Density	0.945 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	5-8 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

*Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%

• Advantages

DISPERSION

Achieve optimum dispersion & distribution of polar polymer, fillers, starch, glass fiber, etc., in the non-polar polymer matrix

MECHANICAL PROPERTIES

Improve mechanical properties, e.g., tensile strength, impact resistance & flexural modulus in polyolefin & biodegradable containers

OTHER

- Eliminate output variation
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final products

Maleic Anhydride Grafted Linear Low Density Polyethylene

Aria Couple 1196

Description

- Maleic anhydride functionalized polyethylene produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & polar polymers, fillers, etc.

Product Application

COUPLING AGENT FOR PE OR PVC

- Fillers, e.g., starch in biodegradable polyolefin compounds 1.5-5%
- Reinforcing agents such as glass fiber, wood flour, and HFFR additives 1.5-6%
- Adhesion promoter for PE films or lamination coating 5-15%

COMPATIBILIZER PE

- Polar polymers e.g., Polycarbonate 1.5-5%



Technical Specifications

Properties	Value	Method
Density	0.93 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	0.5-1.5 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%

Advantages

DISPERSION

Achieve optimum dispersion & distribution of polar polymer, fillers, starch, glass fiber, etc., in the non-polar polymer matrix

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in non-polar polymers & biodegradable containers

OTHER

- Eliminate output variation
- Increase permeability of product
- Achieve dimensional stability
- Increase smoothness of final products

Maleic Anhydride Modified Low Density Polyethylene

Aria Couple 1125

Description

- Maleic anhydride functionalized low density polyethylene produced by reactive extrusion
- Coupling agent & compatibilizer between polyolefin & polar polymers, fillers, etc.

Product Application

COUPLING AGENT FOR PE &

- Fillers e.g., starch in biodegradable polyolefin compounds 1.5-5%
- Reinforcing agent such as glass fiber & wood floor 1.5-4%
- Flame retardant fillers e.g., ATH & MDH in HFFR cable compounds 3-6%

COMPATIBILIZER PE &

- Polar polymers e.g., Polycarbonate 1.5-5%



Usage

Technical Specifications

Properties	Value	Method
Density	<0.93 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	1.2±0.5 g/10min	ASTM D1238
Maleic Anhydride Graft Level	High*	Titration Method

* Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%

Advantages

DISPERSION

Achieve optimum dispersion & distribution of polar polymer, fillers, starch, glass fiber, etc. in non-polar polymer matrix

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in polyolefin & biodegradable containers

OTHER

- Eliminate output variation
- Increase permeability of product
- Achieve dimensional stability
- Increase surface smoothness of final products

Ethylene Copolymer Functionalized by Maleic Anhydride

Aria Couple 1937

Description

- Maleic anhydride functionalized ethylene copolymer produced by reactive extrusion
- It has been primarily designed to use in adhesive formulation and in polar and non-polar polymer compound such as EVA/PE and PA/PE

Product Application

COUPLING AGENT FOR EVA &

Fillers and reinforcing agents
e.g., GF and other mineral
fillers in EVA compounds 3-15%

COMPATIBILIZER FOR POLYOLEFINES &

Polar polymers e.g., PA 1.3-5%

Advantages

DISPERSION

Function as a coupling agent between reinforcing materials such as glass fibers or mineral fillers and EVA to achieve superior mechanical properties

MECHANICAL PROPERTIES

Improve mechanical properties e.g., tensile strength, impact resistance & flexural modulus in EVA compounds

OTHER

- Eliminate output variation
- Increase permeability of polyolefin
- Achieve dimensional stability
- Increase surface smoothness of final products

Technical Specifications

Properties	Value	Method
Density	<0.94 g/cm ³	ASTM D792
Melt Flow Index @190°C/2.16kg	0.5-1.5 g/10min	ASTM D1238
Maleic Anhydride Graft Level	Very High*	Titration Method

*Low <0.25wt%, Medium 0.25-0.5wt%, High 0.5-1.0wt%, Very High >1.0wt%





Aria Coupler
Maleic Anhydride
Crystalline Polymer

Aria Coupler
Maleic Anhydride
Crystalline Polymer

- Notes

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