

arxada

Performance Additives for Paints & Coatings

A Portfolio of Advanced Solutions

Paints & Coatings/Additives/Global

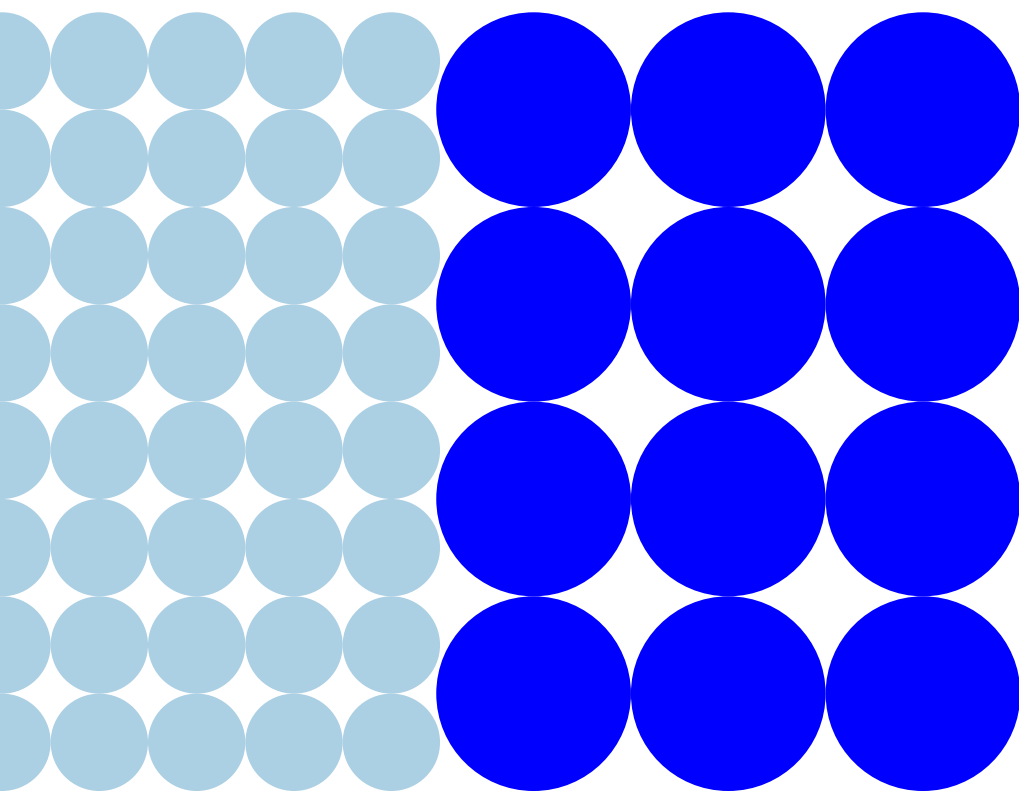


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A New Name Built on a Powerful Legacy

We are Arxada

Arxada is a force in microbial control and performance additives, built upon the powerful legacies of industry leaders, such as Troy Corporation. Industrial Microbial Control, or IMC, is the arm of Arxada dedicated to preservatives and additives for customers in paints & coatings, marine antifouling, metalworking fluids, plastics, textiles, and energy. Through Arxada IMC, customers can experience new levels of control, performance, reliability, and sustainability, enabled by an extensive portfolio of products, and one of the largest global manufacturing and supply networks in the industry.

Arxada Performance Additives.

Arxada Performance Additives enable coatings manufacturers to develop formulated products that meet the demanding requirements of their customers. Arxada Performance Additives include wetting and dispersing additives, rheology modifiers, and defoamers for both solvent and water-borne systems and applications. Arxada also offers a full selection of driers and anti-skinning agents as well as a full line of advanced additives for powder coating systems.

Technical service assistance is located in strategic worldwide locations to provide solutions to customer challenges and assist in the use of additives for new product development.

Arxada Performance Additives Enhance Coating Properties

Wetting Additives	Dispersing Additives	Rheology Additives	Defoaming Additives	Powder Coating Additives	Driers & Anti-Skinning
Improve substrate wetting	Reduce dispersion processing time	Develop viscosity profile	Eliminate process foam	Enhance flow & leveling	Inhibit loss-of-dry
Improve surface smoothness	Improve color uniformity and strength	Improve color uniformity	Eliminate application foam	Eliminate surface defects	Prevent skinning
Improve color acceptance and uniformity	Increase transparency for transparent pigments	Improve application properties		Promote degassing	Improve dry time
Improve gloss	Improve gloss	Reduce pigment settling		Create textures & special effects	
Improve surface slip	Improve hiding				
Eliminate surface defects		Reduce coating sag			
Improve adhesion					

This selection guide is designed to inform customers of the performance additives Arxada offers, and to assist them in selecting products that will best serve their needs.





Table 1 - Wetting Additives

Product	Uses	Features	Use Levels (% Weight)	Physical Form	Description	Incorporation
Troysol® LAC	Substrate wetting, flow & leveling	Superior substrate wetting	0.1 - 0.8	Liquid	Anionic surfactant	Let down, post-add
Troysol® ZLAC	Substrate wetting, flow & leveling	No VOC, superior substrate wetting	0.1 - 0.8	Liquid	Anionic surfactant	Let down, post-add
Troysol® Z370	Substrate wetting, flow, slip & anti-mar	Universal, no VOC contribution	0.1 - 0.5	Liquid	Silicone co-polymer	Let down, post-add
Troysol® 382	Substrate wetting, flow & leveling	Effective wetting in high speed	0.1 - 0.5	Liquid	Diol solution	Let down, post-add

Table 2 - Dispersing Additives

Product	Uses	Features	Use Levels (% Weight)	Physical Form	Description	Incorporation
Troysperse® W	Pigment dispersion	Effective for color concentrates	Varies	Liquid	Amphoteric dispersant	Grind
Troysperse® ZWD1	Pigment dispersion	Low use level, organic & carbon black	Varies	Liquid	Non-ionic dispersant	Grind
Troysperse® 90W	Pigment dispersion	Excellent for universal color concentrates	Varies	Liquid	Anionic dispersant	Grind

Please confirm product availability in your region/country with your Arxada sales representative.

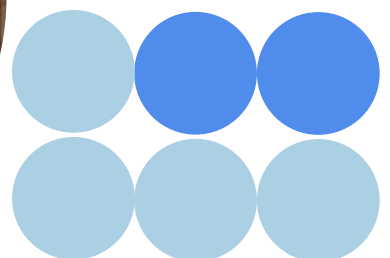




Table 3 - Defoaming Additives

Product	Uses	Features	Use Levels (% Weight)	Physical Form	Description	Incorporation
Troykyd® D11	PSA's/adhesives	Silicone-free, easily dispersible	0.2 - 0.5	Liquid	Hydrophobic silica	Grind, let down
Troykyd® D121	Drymix mortar products	Dry powder	0.1 - 0.4	Powder	Glycol-treated carbonate	Dry blend
Troykyd® D209W	Micro/macro foam	Highly compatible	0.2 - 1.0	Liquid	Silicone emulsion	Grind, let down
Troykyd® D230	Process	Effective in color concentrates,FDA compliant	0.05 - 0.30	Liquid	Hydrophobic silica/silicone	Grind
Troykyd® D704	General purpose	High efficacy, excellent performance	0.2 - 1.0	Liquid	Hydrophobic silica	Grind, let down
Troykyd® D727	Performance/ high gloss	Highly effective, excellent persistence	0.1 - 0.6	Liquid	Hydrophobic silica/silicone	Grind, let down
Troykyd® D742	Performance/ high-gloss	Highly effective, excellent persistence	0.1 - 0.6	Liquid	Blend of modified silicones & polyglycols	Grind, let down
Troykyd® D745	Performance/ high-gloss	Highly effective, excellent persistence	0.1 - 0.6	Liquid	Blend of modified silicones	Grind, let down
Troykyd® D762	General purpose	Excellent foam control for medium to high PVC systems	0.1 - 0.5	Liquid	Emulsion of mineral oil, surfactants	Grind, let down
Troykyd® D766	General purpose	High efficacy, excellent in low viscosity systems	0.1 - 0.5	Liquid	Polyglycol-based emulsion	Grind, let down
Troykyd® D767	General purpose	High efficacy in low viscosity systems	0.1 - 0.5	Liquid	Polyglycol-based emulsion	Grind, let down
Troykyd® D768	PSA's/adhesives	APE-free, silicone-free, easily dispersible	0.2 - 0.5	Liquid	Hydrophobic silica	Grind, let down

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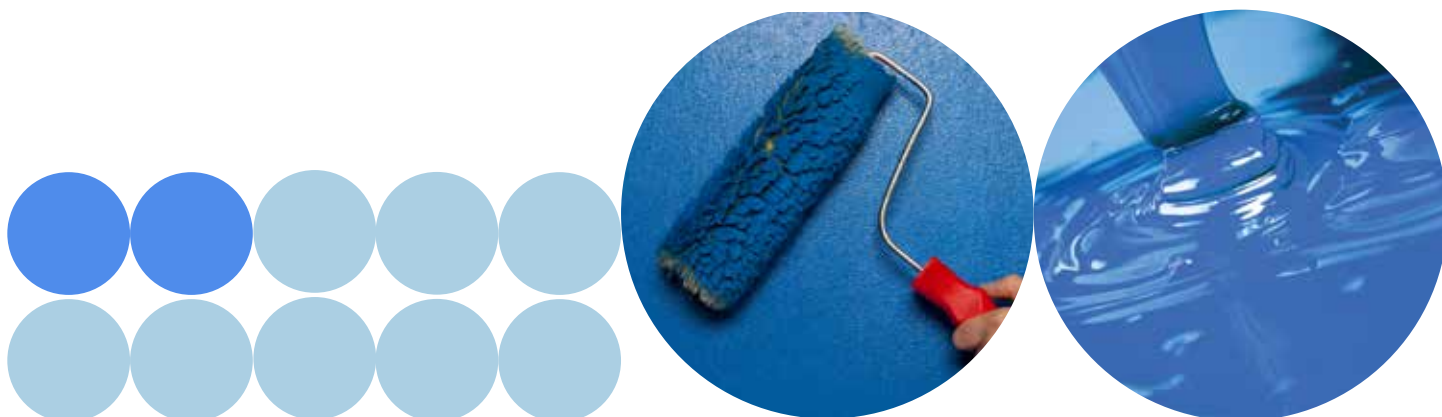


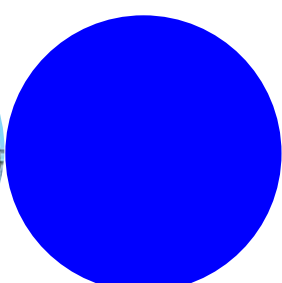


Table 4 - Wetting Additives

Product	Uses	Features	Use Levels (% Weight)	Physical Form	Description	Incorporation
Troysol® AFP	Color float	Prevents flooding & floating	0.2 - 0.6	Powder	Surface-treated inert carrier	Grind
Troysol® S366	Substrate wetting, flow & leveling	Wets contaminated substrate	0.2 - 0.6	Liquid	Siloxane co-polymer	Let down, post-add
Troysol® S367	Substrate wetting, flow & leveling	Wets contaminated substrates, APE-free	0.2 - 0.6	Liquid	Siloxane co-polymer	Let down, post-add
Troysol® Z370	Substrate wetting, flow, slip & antimar	Universal, no VOC contribution	0.1 - 0.5	Liquid	Silicone co-polymer	Let down, post-add

Table 5 - Dispersing Additives

Product	Uses	Features	Use Levels (% Weight)	Physical Form	Description	Incorporation
Troysperse® CD1	Pigment dispersion	Excellent pigment dispersion & stabilization, for inorganic pigments	Varies	Liquid	Derivative of polymerized oils	Grind
Troysperse® SD8	Pigment dispersion	Cost-effective pigment dispersion, for inorganic pigments	Varies	Liquid	Derivative of polymerized oils	Grind
Troysperse® W	Pigment dispersion	Effective for color concentrates	Varies	Liquid	Amphoretic dispersant	Grind
Troysperse® 90W	Pigment dispersion	Excellent for universal color concentrates	Varies	Liquid	Anionic dispersant	Grind
Troysperse® 98C	Pigment dispersion	Effective with carbon black & organic pigments	Varies	Liquid	Fatty amine surfactant	Grind



Please confirm product availability in your region/country with your Arxada sales representative.





Table 6 - Rheology Modifiers

Product	Uses	Features	Use Levels (% Weight)	Physical Form	Description	Incorporation
Troythix® XYZ	Viscosity/sag/settling	Imparts thixotropic properties	0.2 - 1.0	Powder	Castor oil ester	Grind
Troythix® A	Viscosity/sag/settling	Excellent for architectural coatings	0.2 - 1.0	Powder	Modified castor oil	Grind
Troythix® AntiSag 4	Sag resistance, anti-settling	Post-add to reduce sag	0.4 - 1.0	Liquid	Sulphonated castor oil	Let down, post-add
Troythix® 21BA	Viscosity	Imparts thixotropic properties	0.5 - 1.5	Liquid	Chemically modified polymerized oil	Let down, post-add
Troythix® 42BA	Viscosity	Viscosity adjustments for oxidizing systems	0.5 - 1.5	Liquid	Chemically modified polymerized oil	Let down, post-add
Troythix® 150ACS	Viscosity, sag resistance, anti-settling	Excellent pigment suspension	0.5 - 5.0	Paste	Polyamide wax	Incorporate with shear
Troythix® 152H	Viscosity, sag resistance, anti-settling	High viscosity, excellent pigment suspension	0.5 - 5.0	Paste	Polyamide wax	Incorporate with shear
Troythix® 154B	Viscosity, sag resistance, anti-settling	Excellent pigment suspension	0.5 - 5.0	Paste	Polyamide wax, aromatic-free	Incorporate with shear
Troythix® 200X	Sag/settling	Pourable waxy gel, low temperature activation	1 - 5	Paste	Polyolefin wax	Grind
Troythix® 220B	Sag/settling	Pourable waxy gel, low temperature activation	1 - 5	Paste	Polyolefin wax, aromatic-free	Grind

Table 7 - Defoaming Additives

Product	Uses	Features	Use Levels (% Weight)	Physical Form	Description	Incorporation
Troysol® AFL	Air release	Highly effective in solvent systems	0.2 - 0.6	Liquid	Polymeric ester blend	Grind, let down
Troysol® 307	Air release	Contains silicone, recommended for 2K Epoxy/PU	0.2 - 0.6	Liquid	Non-ionic polymeric surfactant/silicone co-polymer	Grind, let down

Please confirm product availability in your region/country with your Arxada sales representative.

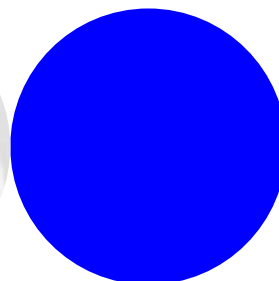
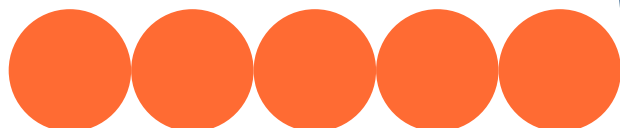


Table 8 - Suggested Application Systems for Arxada Additives

Product	Dry	Non-Aqueous													Aqueous										
		Alkyd		Acrylic		Epoxy		Urethane		Polyester		Lacquers			Water Reducible			Emulsion							
		Air-Drying	Baking	Air-Drying	Baking	2-Component	Epoxy Ester	Epoxy-Phenolic	2-Component	Oil-Modified	Moisture-Curing	Saturated	Unsaturated	Nitrocellulose	Butyrate	Vinyl	Chlorinated Rubber	Alkyd	Acrylic	Polyester	Pure Acrylic	Modified Acrylic	Vinyl Acetate/Ethylene	Urethane (PUD)	Alkyd
Wetting Additives																									
Troysol® AFP		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troysol® LAC																				•	•	•	•	•	•
Troysol® ZLAC																				•	•	•	•	•	•
Troysol® S366		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troysol® S367		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troysol® Z370		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troysol® 382																				•	•	•	•	•	•
Defoaming Additives																									
Troykyd® D11																						•	•	•	
Troykyd® D121	•																								
Troykyd® D209W																				•	•	•	•	•	•
Troykyd® D230																				•	•	•	•	•	•
Troykyd® D704																						•	•	•	•
Troykyd® D727																				•	•	•	•	•	•
Troykyd® D742																				•	•	•	•	•	•
Troykyd® D745																				•	•	•	•	•	•
Troykyd® D762																						•	•	•	
Troykyd® D766																				•	•	•	•	•	•
Troykyd® D767																				•	•	•	•	•	•
Troykyd® D768																						•	•	•	
Troysol® AFL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troysol® 307		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Dispersing Additives																									
Troysperse® CD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
Troysperse® SD8		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troysperse® W		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troysperse® ZWD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•	•
Troysperse® 90W		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Troysperse® 98C		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Rheology Modifiers																									
Troythix® A		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® AntiSag 4		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® XYZ		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® 21BA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® 42BA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® 150ACS		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® 152H		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® 154B		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® 200X		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Troythix® 220B		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						

Please confirm product availability in your region/country with your Arxada sales representative.

Table 9 - Powdermate® Additives

Product	Features	Use Levels (% Weight)	Description	Incorporation	Suggested Application Systems							
					OEM	Automotive Body, Trim & Auxiliary	Clear Coat	Appliance	Architectural	Lawn & Garden	General Industrial	Functional
Flow and Leveling												
Powdermate® 460PFL	Enhanced flow and levelling	0.5 - 2.0	Acrylic flow modifier	Add to premix	•	•			•	•	•	•
Powdermate® 486CFL	Excellent clarity and surface smoothness	0.5 - 2.0	Amide-modified polyether oligomer	Add to premix, high shear premixing	•	•	•	•	•	•	•	
Powdermate® 507PFL	Excellent surface smoothness & distinctness of image	0.5 - 2.0	Amide modified polymeric ester	Add to premix	•	•		•	•	•	•	•
Powdermate® 570FL	Excellent clarity & improved surface smoothness with intercoat adhesion	0.5 - 2.0	Amide-modified polyether oligomer	Add to premix, high shear premixing	•	•	•	•	•	•	•	
Powdermate® 575FL	Excellent clarity & improved surface smoothness with intercoat adhesion	1.0 - 3.0	Amino ester modified polyether oligomer	Add to premix	•	•	•	•	•	•	•	
Degasser												
Powdermate® 542DG	Non-yellowing Degassing with Excellent Clarity	0.5 - 2.0	Polymer-based surfactant	Add to premix	•	•	•	•	•	•	•	
Powdermate® 550DG	Non-yellowing Degassing	0.5 - 2.0	Amide-modified phenol surfactant	Add to premix, post-blend	•	•	•	•	•	•	•	•
Texturizing Agent												
Powdermate® 408TEX	Acrylic texturizing agent for stripple textures	0.5 - 2.0	Polymer-based surfactant	Post-blend							•	•
Powdermate® 508TEX	Post-blend texturing additive with excellent consistency	0.5 - 2.0	Polymer-based surfactant	Post-blend	•			•	•	•	•	•

Please confirm product availability in your region/country with your Arxada sales representative.

Arxada Driers & Anti-Skinning Agents

Arxada driers and metal carboxylate products enable manufacturers to create value added, high performance coatings, including architectural, decorative, OEM/industrial, traffic, and gel coat, as well as inks, lubricants, and many other industrial and consumer materials. Arxada offers a full portfolio of paint driers, which are shown in Table 10.

Over periods of prolonged paint storage, paint driers become deactivated – a condition known as loss-of-dry. The best defence is to incorporate a loss-of-dry inhibitor. In response to this challenge, Arxada developed Troymax® Permadyr, a high-performance loss-of-dry inhibitor. By incorporating Troymax™ Permadyr into formulations, drying times can be maintained for significantly longer periods, extending product shelf-life and protecting the paint's commercial value.

Consumers and manufacturers are affected by the skinning of liquid products such as paints, stains, inks, and other coatings. Skinning is a premature, unwanted film-formation on liquid or slurried product surfaces. The risk of skinning can be reduced with the addition of Troymax® Antiskin agents. Arxada's line of Troymax® Antiskin products are shown in Table 11.



Table 10 - Driers

Product		Description
Troymax® Barium	12.5	Improves through-drying of coating and good pigment wetting characteristics
Troymax® Calcium	10NA, 8NA, 6NA, 5NA, 4NA	Helps to improve hardness and gloss as well as to reduce skin formation, silking and blooming
Troymax® Calcium Octoate	6, 5	Helps to improve hardness and gloss as well also reduce skin formation, silking and blooming
Troymax® Cobalt	12, 12 NEO, 10, 10 NEO, 8, 6, 2	Produces fast surface to the dry film
Troymax® Lithium	2	Promote through-drying, often used in high solids and water-dispersible alkyds
Troymax® Manganese	12, 10, 9, 6	Improve surface drying of a paint film and also possess through-drying properties
Troymax® Potassium	15	Potassium carboxylates work with Cobalt in thermo-set systems
Troymax® Strontium	10	Improve through-drying under adverse conditions such as high humidity and low temperatures
Troymax® Zinc	16, 12, 10, 6	Demonstrates anti-oxidant properties, keeps auto-oxidative films 'open', permitting hardening throughout
Troymax® Zirconium	24, 18, 12, 10, 6	Improves through-dry of auto-oxidating drying systems
Troychem Copper	8	Possesses some catalytic activity and tends to produce more consistent films
Troychem Zinc	8	Demonstrates anti-oxidant properties, keeps auto-oxidative films 'open', permitting hardening throughout
Troymax® Permady	Drier blends	Loss-of-dry inhibitor
Troychem Calcium 6WD	Water dispersible systems	Helps to improve hardness and gloss as well as to reduce skin formation, silking and blooming
Troymax® Cobalt 6WD	Water dispersible systems	Produces fast surface to the dry film
Troychem Manganese 6WD	Water dispersible systems	Improve surface drying of a paint film and also possess through-drying properties
Troymax® Zirconium 12WD	Water dispersible systems	Improves through-drying of auto-oxidating drying systems
Troymax® Lithium	2	Promotes through-drying
Troymax®	350	Non-metallic driers
Troymax®	CZ69, CSD, 123, 2002, KC10, BXPB	Standard drier blends
Troymax®	858	Zinc soap of steric acid modified

Table 11 - Anti-Skinning Agents

Product	Description
Troymax® Antiskin OS	Cyclohexanone Oxime-based Anti-Skinning Agents
Troymax® Antiskin OP	Cyclohexanone Oxime-based Anti-Skinning Agents
Troymax® Antiskin OL	Non-Oxime Anti-Skinning Agents
Troymax® Antiskin B	Methyl Ethyl Ketoxime-based Anti-Skinning Agent
Troymax® Antiskin MP	Methyl Propyl Ketoxime-based Anti-Skinning Agent

Please confirm product availability in your region/country with your Arxada sales representative.



World-Class Products, Services, & Support

Arxada is a global manufacturer focused on innovation and development of advanced antimicrobials and additives that enhance products and processes. Arxada augments its portfolio of products with world-class technical services that enable customers worldwide to achieve excellent results cost-effectively.

Arxada's special areas of expertise include:

- Prevention of microbial degradation
- Global regulatory support with regional and national expertise
- Worldwide technical services including microbiology & analytical laboratories



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