Plastics & Rubbers

PROFILE

KhaiEL is working with major additive manufacturers, suppliers, and resin producers in the field of plastic & rubber. We are committed to providing excellent and innovative products to our customers while providing reliable technical support at the same time. Different types of additives mixed with a special rubber like EVM would bring about a positive synergy to customers as we strive to develop new technologies and ideas. Subsequently, more customers will come to us for solutions and we will have a greater influence in the market worldwide.

Product	Product Name	Appearance	Use	Properties
Hindered Amine Light Stabilizer	SUNOVIN®**770**	White granule/Micro beads	PE, PP, Polyester, PS, PU, PVC, PA, ABS	Low molecular weight HALS with high purity and excellent UV stability, especially when used together with antioxidant.
	SUNOVIN®**622**	White crystalline powder	PE, PP, PU, POM, ABS	High molecular weight HALS for PE, PP, PU, POM, ABS, etc with excellent thermostability, low volatility, resistant to migration, extraction and color fading.
	SUNOVIN®**901***	White powder or granule	PE, PP, PU, POM, PA	High molecular weight HALS widely used for PE, PP, PU, POM, PA and polyester elastomer to prevent from photo-oxidation.
	SUNOVIN®**902***	White powder or granule	Polyolefin	Excellent UV stabilizer widely used for thick products. The synergic effect of HMW and LMW HALS provides optimum protection for polyolefins.
	SUNOVIN®**903**	White powder or granule	Polyolefin	Special polymeric structure, usde for stabilizing system that requires low volatility and migration, especially suitable for polyolefin films and fiber.
	SUNOVIN®**904**	White powder or granule	PE, PP, PET, PS, ABS, PA, Elastomers	High molecular weight HALS, used for stabilizing system that requires low volatility and migration, especially suitable for polyolefin films and fiber. The average molecular weight comes to 3000.
	SUNOVIN®**905**	White powder	Plastic film	Excellent resistance to migration and extraction, good compatibility with any kind of resins. With low alkalinity, it is chemicals resistant and provides extended-life protection for agricultural films in the presence of sulfur or halogen-containing pesticides.
	SUNOVIN®**906**	White powder	Plastic film	Resistant to gas smoked, pesticides, extraction, one of the best light stabilizers used in agricultural and industrial film.
	SUNOVIN®**907**	White powder	Plastic film	Resistant to gas smoked, pesticides, extraction, one of the best light stabilizers used in agricultural and industrial film.
	SUNOVIN®**910**	White powder	Engineering plastics	A new type HALS. Offers outstanding UV stability and excellent color stability.
	SUNOVIN®**5513**	Light yellow liquid	Paint and coatings	This product is low alkali. Extend the life span of coatings by preventing from cracking, loss of gloss, dusting, etc.
	SUNOVIN®**5529**	Light yellow liquid	Paint and coatings	An efficient HALS, mainly used in coatings, printing inks, polyurethane lacquer, preventing coating from blowing-out and surface peering-off, with better effect for mobile coating. It has cooperative effect with benzotriazole UV absorbers.
	SUNOVIN®**5583**	White powder	Automotive parts	New type of low molecular HALS with excellent thermostability, superior stability when processed, low melting point and good compatibility with resins.
	SUNOVIN®**5584**	White granule	Automotive parts	Low molecular weight HALS with no blooming observed and good synergic effect with HMW HALS, especially suitable for automotive interior and exterior parts.
	SUNOVIN®**5585**	White granule	Automotive parts	Low molecular weight HALS with no blooming observed and good synergic effect with HMW HALS, especially suitable for automotive interior and exterior parts.
	SUNOVIN®**5589**	White granule	PP long weathering	Effect UV stabilizer for polypropylene with low volatility and color contribution, excellent compatibility with polyolefins with no observed blooming, exceptional surface stabilization, especially suitable for automotive interior and exterior parts.
	SUNOVIN®**5590**	Light yellow granule	PP long weathering	Effect UV stabilizer for Polypropylene with low addition, high adaptability, and environmental friendly, especially suitable for automotive interior and exterior parts.
	SUNOVIN®**5591**	White powder	Nylon	A novel Multi-functional additive of HALS for polyamide exterior parts.
	SUNOVIN®**5593**	Light yellow granule	PP long weathering	Efficient UV stabilizer for Polypropylene with low volatility, excellent compatibility with polyolefins with no observal blooming, especially suitable for automotive interior and exterior parts for effective cost/performance.
	SUNOVIN®**531**	Light yellow powder/ flake	PE, PP, PVC, PA, ABS	A cost efficient Benzophenone UV absorber, maximally absorbing 270-340nm UV light, widely used in polyolefins, PS, PET, PVC, PA, etc, to retard yellowing and loss of physical properties.
	SUNOVIN®**1084**	Yellow green powder	PC, PE film	A pesticide and acid resistant UV absorber, performance synergy with Benzophenone Sunovin 531 for superior stabilization in polyethylene agricultural film and polypropylene turf applications.
	SUNOVIN®**5515**	White powder	PC	An excellent UV absorber, used for stabilization of automotive refinishes and industrial coatings.
	SUNOVIN®**5516**	Light yellow powder	PE film, TPO, POM, PA, PET, PC	A triazine UV absorber, with very low volatility, exceptional compatibility with polymer and extraction resistance, widely used for PE film and filament, TPO, POM, PA, PET and PC, etc.
	SUNOVIN®**5517**	Light yellow powder	PET, PC, PA	A triazine UV absorber, with very low volatility, exceptional compatibility with polymer and extraction resistance, widely used for PET, PC, PA and polymer blends alloys with a higher resistance to weathering than conventional Benzotriazole UV absorbers.
	SUNOVIN®**5518**	White powder	PET, PC	An excellent UV absorber with low volatility, durability under high temperature, minimal color contribution and strong UV absorbance, widely used for PET film, PET fiber, PET bottle and PC sunlight plate.
	SUNOVIN®**5519**	Off white powder	PP, PE, PVC, UPE, ABS	A high-efficient Benzotriazole UV absorber, absorbing UV with low volatility, used for PS, PET, PVC PC, ABS, etc, suitable for transparent products and engineering plastics processed in high-temperature.
	SUNOVIN®**5520**	Off white powder/granule	PC, PET, PA	An excellent UV absorber used for PC, PET and PA applications with good resistance to high temperature.
	SUNOVIN®**5521**	Light yellow powder	PE, PP, ABS, PU	A Benzotriazole UV absorber, widely used for PE, PP, ABS, PU and coatings.
	SUNOVIN®**5522**	Light yellow powder/crystals	ABS, PS, PU, PVC, Elastomers	An efficient Benzotriazole UV absorber, used for polyester, epoxy, cellulose acetate, ABS, PVC, polystyrene, plexiglass and polyacrylonitrile resin etc, suitable for the colorless or transparent products.
	SUNOVIN®**5523**	Off white powder	PET/PC	An efficient Benzotriazole UV absorber, used in the application of PE, PP, PVC, PU, PC, polyester, polyacetal, polyamides, coatings, etc.
	SUNOVIN®**5524**	Light yellow powder	PE, PP, Polyester	An efficient Benzotriazole UV absorber, suitable for polyolefin(especially foodstuffs), polyamide, PVC, ABS resin, AS resin and polyurethane, as well as photosensitive materials and coatings.

	SUNOVIN®**5530**	Light yellow liquid	Coating	Benzotriazole UV absorber, used to protect the gloss of coating and prevent from cracking and spotting, easily emulsifying products to adapt to aqueous system, good resistance to high temperature and extraction, particularly suitable for auto-coating with high weatherbility. It can also provide good protection for sensitive materials like wood craft. It has cooperative effect with Sunovin 5529.
	SUNOVIN®**5533**	White powder	Auxiliary absorber	UV absorber in applications of Plastic, Coating and Sun-screening agent.
	SUNOVIN®**5539**	Yellow liquid	USA FDA sunscreen agent	Sanctioned by FDA as I class Sun-screening agent.
	SUNOVIN®**5540**	White powder	Auxiliary absorber	A highly efficient UV absorber for PVC, PE, PP, ABS and unsaturated polyesters, with exceptional synergic effect with HALS.
	SUNOVIN®**5571**	Yellow liquid	Neutral UV absorbent	Liquid Benzotriazole UV absorber, soluble in many solvents and monomers, and easy for emulsification in water-based Adhesive.
	SUNOVIN®**5586**	White powder	Neutral UV absorbent	A light satbilizer with low volatility, good solubility and excellent copatibility with other UV absorber, HALS and thioesters, FDA sanctioned in polyolefins.
	SUNOVIN®**5350**	Lighe yellow powder	PE, PP, PS, PVC, PET, ABS	An efficient UV absorber, maximal UV absorption of 345nm, widely used for PE, PP, PS, PVC, PET and ABS resin, etc.
Anti-Oxidants	SUNOX®**168**	White powder	PE, PP, PET, PBT, ABS, PC, PS, PA, POM, TPU	Secondary high performance phosphite anti-oxidant, Exhibits reduction in polymer degration during processing. Provides improved gas fading performance in many applications. Low color and volatility. Extraction resistant. Sanctioned for use in polyolefin's by FDA. It can be used in combination with hindered phenol, such as SUNOX1010, SUNOX1076 to achieve synergistic performance. It can be used with benzotriazoles and HALS for thermal and light stabilization in out door use.
	SUNOX®**425**	White to off white	PP fiber, Polyester fiber, Adhesive	High-effective solid phosphite ester antioxidant, which is superior to other phosphite ester in protection of polymers' color. It is particularly recommended for use in polypropylene fibers. It improves the thermo-stability of polymer processing.
	SUNOX®**535**	Light yellow liquid	PVC, ABS, PE, SBR, BR, NBR, Synthetic fibers, Waxes, Fats and oils	Primary phenolic anti-oxidant for long-term thermal stabilization. It can be used with benzotriazoles or HALS for thermal and light stabilization in outdoor applications.
	SUNOX®**545**	White powder	PU, ABS, MBS, SB and SBR, POM, PA, PVC	High performance sterically hindered phenolic anti-oxidant, protects the polymer against thermo-oxidative degradation during the manufacturing processes and in end-use applications. Low volatility, good color stability, and extraction resistant. It can be used with benzotriazoles or HALS ofr thermal and light stabilization in outdoor use. Exhibits a synergistic effect when used in combination with thioester antioxidants.
	SUNOX®**555**	White powder	High-temp processing Polyolefin	High molecular weight phenolic antioxidant, Low volatility, good color stability, and extraction resistant. Excellent dielectrical properties. High resistance to thermo-oxidative degration. Exhibits a synergistic effect when used in combination with UVA or HALS. Sanctined for use in polyolefin's FDA.
	SUNOX®**557**	Light yellow liquid	High-temp proc Polyolefin	Liquid aromatic amine antioxidant, highly efficient and prevent thermal degradation of polymers even at low concentrations. When use in combinatin with a phenolic antioxidant, such as SUNOX 535, is very active in preventing scorching of PU flexible foams.
	SUNOX®**565**	White powder	Rubber	Primary phenolic anti-oxidant
	SUNOX®**575**	White to light yellow powder	PBT, Polyisoprene, SBR, SIS, SBS, Hot melt adhesive	High molecular weight, non-staining, multifunctional phenolic antioxidant, developed for the stabilization of unsaturated elastomers, hot melt adhesives, and rosin ester tackifier resins. Maintains very good polymer color. It is highly effective to prevent gel formation and discoloratin in unsaturated elastomers, even at reduced concentrations compared with some conventional antioxidants.
	SUNOX®**590**	White to off-white powder	PU, PP, PA fiber, Polyester	Hindered phenolic antioxidant, High extraction resistance, Excellent gas fading resistance
	SUNOX®**597**	Off-white powder	FDA for use in PP, PE, PS, Rubber modified PS	Synergistic blend of USNOX 168 and SUNOX 590. Minimal color and odor contribution. Low volatility and very good processing stabilization. Exhibits low gas yellowing and low water carry-over.
	SUNOX®**626**	White powder	Polyolefins, Elastomers, PC, PS, Polyester	Secondary high performance anti-oxidant, Exhibits reduction in polymer degration during processing. Provides improved gas fading performance in many applications. Low color and volatility. Extraction resistant. Sanctioned for use in polyolefin's
	SUNOX®**1010**	White powder	Polyolefins	Sterically hindered phenolic antioxidant. It is highly efficient, nondiscoloring stabilizer for organic substrates such as plastics, synthetic fibers, elastomers, adhesives, waxes, oils and fats. It protects these substrates against thermo-oxidative degradation.
	SUNOX®**1076**	Light yellow powder/granule	Polyolefins	Sterically hindered phenolic antioxidant. It is highly efficient, nondiscoloring stabilizer for organic substrates such as plastics, synthetic fibers, elastomers, adhesives, waxes, oils and fats. It protects these substrates against thermo-oxidative degradation.
	SUNOX®**1098**	White powder	PA fibers, Molded articles and films	Hindered phenolic antioxidant. Non-discoloring, Low volatility, Good extraction-resistance in hot water, Good Synergisticc with general antioxidant. It can be added prior to polymerization, to protect polymer color properties during manufacturing, shipping or thermal fixation. During the last stages of polymerization or by dry blending on nylon chips, fiber can be protected by incorporating antioxidant 1098 in the polymer melt.
	SUNOX®**1024**	White powder	Polyolefin	Hindered phenolic antioxidant/metal deactivator. It is used for reducing or preventing the harmful effect of copper or other metals uponvarious polymers. Good compatibility in polyolefin and most organic polymers. Excellent extraction resistance to oil and aqueous media.
	SUNOX®**3114**	White powder	Widely used for polymers, synthetic fibers, elastomers, adhesives, waxes, oils, fats	Sterically hindered phenolic antioxidant. It has been approved by the FDA for use in various polymers and adhesives intended for food contact applications. None discoloring, Low volatility, Good extraction-resistant in hot water.
	SUNOX®**TNPP**	Clear liquid	HDPE, LLDPE, SBR, ABS, PVC	Versatile phosphite stabilizer which is useful in a large number of polymers. It is a cost-effective, high purity stabilizer that improves color and processing stability of polymers during recovery, drying, compounding, processing and end use.
	SUNOX®**DSTP**	White powder/granule	PE powder cables, XLPE powder cables, HDPE pipe, PP, Polyolefin under-hood automotive applications, Thermoplastics, Synthetic rubbers	A dialkyl ester of thiodipropionic acid antioxidant. Used as a heat stabilizer in combination with a phenolic antioxidant for polymer. Offers very good color, processing and aging stability.
	SUNOX®**DLTP**	White crystalline flake	PE powder cables, XLPE powder cables, HDPE pipe, PP, Polyolefin under-hood automotive applications, Thermoplastics, Synthetic rubbers	A dialkyl ester of thiodipropionic acid antioxidant. Used as a heat stabilizer in combination with a phenolic antioxidant for polymer. Offers very good color, processing and aging stability.
	SUNOX®**BHT**	White crystal powder	Lubricating oils, re-processed gasoline, paraffin and other mineral oils, ABS resin, PE, PS, PP	This is a cost effective, non-staining, general purpose phenolic antioxidant developed for the stabilization of PP, PE, PS, and rubbers. Maintains very good polymer color.
Nucleating Agents	SUNNA DM	White powder	PET, PP, PA	Sorbitol based clarifying agent for polyolefin. It offers superior aesthetics properties and easy processing characteristics. Suitable for food contact or odor sensitive applications. It can raise transparency of matrix resin, crystallization temperature of matrix resin, heat distortion temperature of matrix resin, tensile strength of matrix resin, flexural modulus of matrix resin.
	SUNNA EM2	White powder	PET, PP, PA	Sorbitol based clarifying agent for polyolefin. It offers superior aesthetics properties and easy processing characteristics. Suitable for food contact or odor sensitive applications. Improve the flexural strength and flexural modulus and crystallization temperature of the base resin.

	SUNNA GM	White powder	PP	This is newly developed nucleating agent. It can raise transparency, surface gloss, heat distortion temperature, flexual strength and other physical mechanical performance of matrix resin. Low odor. Suitable for food contact or odor sensitive applications.
	SUNNA FM	White powder	PP, PET, PBT, PA	This is newly developed nucleating agent. It can raise transparency, surface gloss, heat distortion temperature, flexual strength and other physical mechanical performance of matrix resin. Provides remarkable transparency at low concentration. Has no problem of blooming and non-extractability due to its good compatibility.
Product	Product Name	Appearance	Description	Advantages
Flame Retardants	Aflammit PLF 280	Liquid	Phosphrous contents:10.7%,Higher phosphorus content and lower viscosity compared to alternative phosphate esters (e.g. Triphenyl phosphate, Bisphenol-A Diphosphate)	• Low volatility • Excellent thermal stability and hydrolysis resistance • Limited plasticizing effect (can be used in thermoplastics to increase the melt flow while not compromising mechanical properties) • Non halogenated • Low smoke density, no release of corrosive gases in the event of a fire
	Aflammit PCO 435	Powder	Phosphrous contents:23.5%,High phosphorus content	• Very good thermal stability • Excellent hydrolysis resistance • Not hygroscopic • Very low water solubility • Not soluble in organic solvents • Non halogenated • Low smoke density, no release of corrosive gases in the event of a fire • No impact on electrical properties
Product	Product Name	VA content(wt %)	MFR(190℃/21.2N)(g/10min)	**Description**
EVM (Ethylene-Vinyl Acetate Copolymer)	Levamelt 400	40±1.5	3±2	Ethylene-vinyl acetate copolymer(EVM) with 40wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 450	45±1.5	3±2	Ethylene-vinyl acetate copolymer(EVM) with 45wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 452	45±1.5	10±5	Ethylene-vinyl acetate copolymer(EVM) with 45wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 456	45±1.5	25±10	Ethylene-vinyl acetate copolymer(EVM) with 45wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 500	50±1.5	2.75±1.25	Ethylene-vinyl acetate copolymer(EVM) with 50wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 600	60±1.5	2.75±1.25	Ethylene-vinyl acetate copolymer(EVM) with 60wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 686	68±2.0	25±10	Ethylene-vinyl acetate copolymer(EVM) with 68wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 700	70±1.5	4±2	Ethylene-vinyl acetate copolymer(EVM) with 70wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 800	80±2.0	4±2	Ethylene-vinyl acetate copolymer(EVM) with 80wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.
	Levamelt 900	90±2.0	4±3	Ethylene-vinyl acetate copolymer(EVM) with 90wt% vinyl acetate granules, almost colorless, dusted with silica and talc. Soluble in chlorinated and aromatic hydrocarbons.