



PA AIM MBS & CPE

ACR MBS & CPE



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SHANDONG RUIFENG CHEMICAL CO., LTD.

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山东瑞丰高分子材料股份有限公司
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董事长寄语 CHAIRMAN'S MESSAGE

经过20年的发展,公司产品从单一到多样化,规模从数百吨到十几万吨,市场由国内成功拓展到国外,已成为全球知名的PVC助剂供应商。公司始终以客户为中心,用高质量的产品满足客户的需求,同时坚持科技创新,因为我们相信创新是企业的生命,是企业的立足之本。让我们携手共进,共铸辉煌!

After 20 years of development, from a single product to multiple products, from hundreds of tons to nearly one hundred thousand tons, from domestic success to global reach, the company has grown to a world class producer of the additives for the Rigid Vinyl Industry. Our success has been accomplished by paying utmost attention to quality and customer focus. Quality is derived from our passion to Research and Development and constant strive for the innovation through science and technology. Innovation is the life of enterprise, innovation is the foundation of enterprise, innovation is the future of the enterprise. Let's share the progress by building a better tomorrow and let's grow together!

公司于2011年7月在深圳证券交易所上市,股票名称:瑞丰高材,股票代码:300243。
In July 2011, the company was listed on the GEM board of Shenzhen Stock Exchange, stock code 300243.



公司简介 INTRODUCTION

山东瑞丰高分子材料股份有限公司创建于1994年,属国家级高新技术企业,注册商标为“鲁山”。公司于2011年7月在深圳证券交易所上市,股票代码:300243。

公司主要从事PVC助剂的研发、制造和销售,主导产品为:丙烯酸酯类抗冲改性剂(20000吨/年)、丙烯酸酯类加工助剂(20000吨/年)、抗冲改性剂MBS树脂(30000吨/年)、PVC发泡调节剂(20000吨/年)、抗冲改性剂CPE(20000吨/年)和润滑剂(5000吨/年),产品广泛应用于聚氯乙烯(PVC)门窗、管道、管件、装饰板、发泡板、片材、薄膜、木塑等硬制品的加工。

Established in 1994, Shandong Ruifeng Chemical Co., Ltd. is a state-level Hi-tech Enterprise with over 400 total staff and employees. The registered trademark is RUIFENG POLY. In July 2011, the company was listed on the GEM board of Shenzhen Stock Exchange, stock code 300243.

The company is mainly in the business of researching & developing, manufacturing and sales of PVC additives. The leading products of the company are: Acrylic Impact Modifiers (20,000 ton/yr), Acrylic Processing Aids (20,000 ton/yr), Impact Modifiers MBS resin (30,000 ton/yr), medium and ultra-high MW Acrylic Processing Aids (20,000 ton/yr), Impact Modifier CPE (20,000 ton/yr) and Lubricants (5,000 ton/yr). These products are widely used in rigid products such as PVC window & door profiles, pipes, pipe fittings, sheets, foam boards, WPC, films, etc.

- 1999年-----被山东省科委认定为高新技术企业
- 1999年-----PVC抗冲改性剂MBS树脂被评为国家重点新产品
- 1999年-----PVC加工助剂ACR被评为省科技进步三等奖
- 2001年-----通过ISO9001:2000国际质量体系认证
- 2001年-----年产5000吨丙烯酸酯类抗冲改性剂项目被科技部列为国家级“火炬”计划
- 2004年-----氯化聚氯乙烯加工改性剂LA50获国家发明专利
- 2006年-----公司研究所被山东省科学技术厅认定为山东省PVC助剂工程技术研究中心
- 2011年-----被科技部认定为国家火炬计划重点高新技术企业
- 2011年-----被山东省经信委认定为山东省PVC助剂企业技术中心
- 2013年-----公司“鲁山及图”注册商标被国家工商总局认定为中国驰名商标
- 2013年-----截止到2013年12月公司共取得23项发明专利和19项实用新型专利

- In 1999, the company was recognized as a Hi-tech Enterprise by Shandong Science & Technology Committee.
- In 1999, the PVC Impact Modifier MBS Resin was appraised as Major State New Product.
- In 1999, the PVC Processing Aid ACR won Shandong Province Sci-tech Development Third Class Award.
- In 2001, the company passed ISO9001:2000 International Quality System Certification.
- In 2001, the project of 5,000 ton Acrylic Impact Modifier production per year was listed in State Torch Plan.
- In 2004, the CPVC Processing Aid LA50 won state invention patent.
- In 2006, the company was recognized as Shandong Center for PVC Additives Research and Engineering by Department of Science & Technology of Shandong Province.
- In 2011, the company was recognized as "key High-tech Enterprise of National Torch Plan" by the Ministry of Science and Technology of the People's Republic of China.
- In 2011, the company was recognized as "Provincial Enterprise Technology Center" by Shandong Economic and Information Technology Committee.
- By the end of Dec. 2013, the company has won 23 invention patents and 19 utility model patents.



产品研发 RESEARCH & DEVELOPMENT



山东省PVC助剂工程技术研究中心简介 Shandong Center for PVC Additives Researching & Engineering

山东省PVC助剂工程技术研究中心是2006年经山东省科技厅批准设立的省级工程技术研究中心，该中心的前身是始建于2000年10月的瑞丰高分子材料研究所，现聘有博士5名、硕士4名、本科生12名，该中心主要从事PVC助剂的研究、开发与工艺配方的调试，以及产品性能分析、检测，此外还协助客户进行生产工艺配方的调整。该中心自成立以来已自行研制出各类助剂50多个品种，其中获得二十三项国家发明专利。产品性能达到国际同类产品水平，为企业发展打下了坚实的基础。

Shandong Ruifeng Chemical Institute was established in October 2000. Its function is mainly for research and development of PVC additives, testing formulations, and analyzing and testing of product performance. Besides, it also assists customers with the adjustment of formulations. The institute has developed over 50 processing aid products itself since establishment and its world rank performance has built up a solid foundation for the development of the company. In 2006, the Institute was recognized as "Shandong Center for PVC Additives Researching and Engineering" by the Department of Science & Technology of Shandong Province.



质量控制 QUALITY CONTROL

质量是企业的生命，是企业赖以生存和发展的基础。为确保完美的产品品质，公司建立了严格的质量管理体系，并通过了ISO9001:2008质量体系认证。

Quality is the life of the enterprise and the foundation for survival and development. In order to insure perfect quality of the product, the company has set up strict quality control system and passed the ISO9001:2008 quality system certification.



市场开发 MARKETING



服务永无止境…… Service is endless……

公司以研究所为依托，建立了专门的售后服务队伍，用科学、用诚信全方位满足客户的需求。

Relying on the R & D institute, the company has set up a special after sales service team to satisfy customer demands with scientific and professional service.





1994年7月，公司年产500吨加工助剂装置建成投产，经过十几年的艰苦创业，公司的生产能力大幅提高，“鲁山牌”PVC助剂在国内确立了重要地位，其中PVC加工助剂和抗冲改性剂销量居国内首位。到2013年，公司各类助剂的年生产能力已达到115000吨。

In July 1994, the 500 tons annual processing aid facility was set up and put in production. After a decade of hard work, the company's production capacity has been increased dramatically, its "RUIFENG POLY" brand PVC additives now holds an important position, and the sales volume of PVC processing aid and impact modifier ranks highest in the domestic market. In 2013, the facility capacity has reached 115,000 tons/yr.



沂水工厂 YISHUI PA AIM AND CPE PLANT



沂源ACR工厂 YIYUAN PA AND AIM PLANT



沂源MBS工厂 YIYUAN MBS PLANT



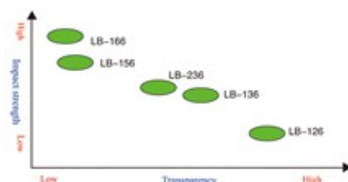
产品目录 PRODUCT SUMMARY

种类 GRADE	型号 TYPE	特性 CHARACTERISTICS	用途 APPLICATIONS	DOW	KANEKA	ARKEMA	LG CHEM	BAERLOCHER
MBS抗冲改性剂 MBS IMPACT MODIFIERS	LB-126	高透明, 低折白 HIGH TRANSPARENCY, LOW CREASE WHITENING	薄膜, 瓶粒料 FILM, BOTTLE	BTA-707	B-622	C-140	MB-870	
	LB-136	透明通用型 GENERAL PURPOSE	薄膜, 透明片, 瓶粒料 FILM, SHEET, BOTTLE	BTA-717	B-22	C-215A	MB-880	
	LB-236	高冲击, 高透明 HIGH IMPACT STRENGTH, GOOD TRANSPARENCY	透明片, 管 SHEET, HOSE	BTA-730	B-625/B-628		MB-885	
	LB-156	非透明, 高冲击 SUPERIOR IMPACT STRENGTH FOR OPAQUE APPLICATION	室内PVC非透明制品 INDOOR PVC PRODUCTS, FITTING, PIPE		B-56		MB-836	
	LB-166	非透明, 超高冲击 ULTRA-HIGH IMPACT STRENGTH FOR OPAQUE APPLICATION	室内PVC非透明制品 INDOOR PVC PRODUCTS, FITTING, PIPE	BTA-751	B-564	C-323	MB-838	
抗冲ACR ACRYLIC IMPACT MODIFIERS	AM-81	加工范围宽, 性价比高 LARGE PROCESSING WINDOW, SUPERIOR SURFACE FINISH	型材, 管材, 管件, 板材 PROFILE, PIPE, FITTING, SHEET	KM-1	FM-22	D-200	IM-808	E-ST 2D
	LS-50	优异低温冲击性能 EXCELLENT LOW TEMPERATURE IMPACT	型材, 管材, 管件, 板材 PROFILE, PIPE, FITTING, SHEET	KM-342	FM-50	D-529	IM-812	E-ST 4
	LS-55	复合加工性能的抗冲改性剂 LARGE PROCESSING WINDOW WITH GOOD IMPACT	型材, 管材, 管件, 板材 PROFILE, PIPE, FITTING, SHEET	KM-369/KM-390	FM-55	D-520		
	LS-61	通用型 GENERAL PURPOSE	型材, 管材, 管件, 板材 PROFILE, PIPE, FITTING, SHEET	KM-355P	FM-40	D-320	IM-809	E-ST 3D
润滑加工助剂 LUBRICATING PROCESSING AID	LP-175	优异的金属剥离性 GOOD METAL RELEASE PROPERTIES	薄膜, 透明片, 发泡板, 木屋膜 FILM, SHEET, FOAM BOARD, WPC	K-175	PA-101	P-770		
丙烯酸酯类 加工助剂 ACRYLIC PROCESSING AIDS	低 LOWER 1million ↑ 分子量 Mw ↓ 7million HIGHER 高	LP-20	透明 塑化快 FAST FUSIONS, CLARITY	薄膜, 透明片, 型材, 管材, 管件	K-130	PA-20/PA-210	PA-821	
		LP-551	透明 塑化快 FAST FUSIONS, CLARITY	FILM, SHEET, PROFILE, PIPE, FITTING	K-120N		P-551	PA-910 3FK
		LP-23/LP-21	通用型 GENERAL PURPOSE	型材, 管材, 管件, 板材 SHEET, PROFILE, PIPE, FITTING	K-125	PA-21/PA-310	PA-828	10F
		LP-40D	塑化快, 扭矩高 EXCELLENT FUSION CONTROL, HIGH MELT STRENGTH	型材, 管材, 管件, 板材 SHEET, PROFILE, PIPE, FITTING	K-128		P-533	
		LP-40	通用型 EXCELLENT GENERAL PURPOSE	型材, 管材, 管件, 板材 SHEET, PROFILE, PIPE, FITTING	K-400		PA-930	20F
		LP-40A	塑化快, 扭矩高 FAST FUSIONS, HIGH MELT STRENGTH	发泡制品 FOAM APPLICATIONS	K-445	PA-40	P-530	40FD
		LP-802	超高熔体强度, 优异的塑化能力 EXCELLENT MELT FLOW, ULTRA-HIGH MELT STRENGTH	发泡制品, 木屋膜 FOAM APPLICATIONS, WPC	K-435	PA-60/PA-610	P-531	
		LP-50	塑化快, 高熔体强度 FAST FUSIONS, HIGH MELT STRENGTH	发泡制品 FOAM APPLICATIONS		PA-630		
		LP-530	超高熔体强度 ULTRA-HIGH MELT STRENGTH	发泡制品, 木屋膜 FOAM APPLICATIONS, WPC				
		LP-90	超高熔体强度, 塑化慢 EXCELLENT MELT FLOW, ULTRA-HIGH MELT STRENGTH	发泡制品, 木屋膜 FOAM APPLICATIONS, WPC				
		LP-91	超高熔体强度, 塑化慢 EXCELLENT MELT FLOW, ULTRA-HIGH MELT STRENGTH	发泡制品, 木屋膜 FOAM APPLICATIONS, WPC				
		LP-92	超高熔体强度, 塑化慢 EXCELLENT MELT FLOW, ULTRA-HIGH MELT STRENGTH	发泡制品, 木屋膜 FOAM APPLICATIONS, WPC				
加工助剂 PVC PROCESSING AIDS	LS-01	塑化快, 性价比高 GOOD FUSION FLUIDITY	型材, 管材, 管件 PROFILE, PIPE, FITTING					
	LS-01A7	优异的塑化性能, 超高性价比 FAST FUSIONS, GOOD MELT STRENGTH	型材, 管材, 管件 PROFILE, PIPE, FITTING					
	LS-400	塑化性能高 HIGH MELT STRENGTH	发泡制品 FOAM PROFILE, SHEET			Blendex869	PA-960	
IMPACT MODIFIER CPE	135A	通用型 GENERAL PURPOSE	不透明型材, 管材, 管件 OPAQUE PROFILE, PIPE, CONDUIT					
润滑剂 PVC LUBRICANTS	L-60	内/外润滑剂 INTERNAL/EXTERNAL LUBRICANT (LOXIOL G60)	通用型 GENERAL PURPOSE					
	L-74	外滑剂 EXTERNAL LUBRICANT (LOXIOL G74)						

MBS IMPACT MODIFIERS LB-126 LB-136 LB-236 (FOR TRANSPARENT)

Product Description

MBS series are products with a "core-shell" structure and excellent toughness performance. The products of this series are the copolymer of methyl methacrylate(M), butadiene(B), styrene(S) and fourth functional monomer. These are synthesized resin specially developed to improve the impact strength and processing performance of PVC products. These are especially suitable to make indoor products, such as PVC films, sheets, pipes, pipe fittings, WPC, bottles and granular materials. LB-126 LB-136 LB-236 offer PVC products with high impact resistance, high transparency, good processability and reduced gelation time and less crease-whitening.



Benefits

- ◆Fast fusion
- ◆Excellent transparency and good impact strength.

Typical Specifications

Appearance	White, free flowing powder
Powder Density (g/cc)	>0.30
Particle size (on 30 mesh) (%)	≤2.0
Volatiles (%Max)	≤1.0

Applications

LB-126 LB-136 LB-236 are high efficiency MBS impact modifiers designed for High transparent PVC films, sheets.

Purpose and Dosage

Item	Properties	Applications	Dosage
LB-126	High transparency, Less crease whitening	Films	6~8
LB-136	Good general performance	Sheets, films	5~7
LB-236	Transparency, High impact strength	Sheets, films	5~7

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

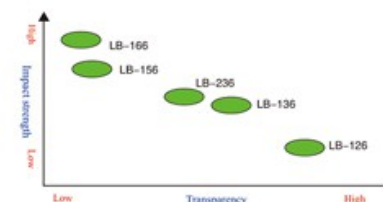
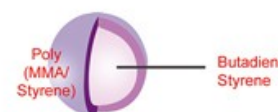
LB series should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.



MBS IMPACT MODIFIERS LB-156 LB-166 (FOR OPAQUE)

Product Description

MBS series are products with a "core-shell" structure and excellent toughness performance. The products of this series are the copolymer of methyl methacrylate(M), butadiene(B), styrene(S) and fourth functional monomer. These are synthesized resin specially developed to improve the impact strength and processing performance of PVC products. These are especially suitable to make indoor products, such as PVC films, sheets, pipes, pipe fittings, WPC, bottles and granular materials. LB-156 LB-166 provide PVC products with superior impact resistance at normal to low temperatures.



Application

LB-156,166 are high efficiency MBS impact modifier designed for opaque applications.

- ◆Extruded or calendared opaque films and sheets
- ◆Extruded indoor pipes, and profiles
- ◆Injection fittings and appliance housings

Benefits

- ◆Fast fusion
- ◆Excellent impact strength.

Typical Specifications

Appearance	White, free flowing powder
Powder Density (g/cc)	>0.30
Particle size (on 30 mesh) (%)	≤2.0
Volatiles (%Max)	≤1.0

Purpose and Dosage

	LB-156	LB-166
Properties	Ultra-high impact strength	
Applications	Sheets, pipes, pipe fittings	
Recommended Dosage	4~5	5~6



PVC Impact Modifier AM-603

Product Description

AM-603 is a new high performance acrylic based impact modifier developed by our dedicated technical team of professionals. This new type of impact modifier is a copolymer of HDPE and acrylic acid and has the basic features of CPE, but much higher impact strength than CPE while the glass transition temperature is far lower than CPE. These attributes, in addition to improved weathering resistance, uniquely makes AM-603 an excellent high performance impact modifier.

Typical Specifications

	AM-603
Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.5

Applications

- ◆ PVC profiles, sheets
- ◆ PVC pipes, fittings, cable conduit
- ◆ PVC sidings, panels, fences

Benefits

- ◆ Higher Tensile strength
- ◆ Higher Impact strength
- ◆ Lower Cost
- ◆ Weatherability

Recommend Formulation

PVC Cable Conduit

Materials	PHR
PVC	100
TiO ₂	1.0-1.2
Stabilizer	4-5
Impact Modifier AM-603	8-10
PE WAX	1.0-1.2
HSt	1.0-1.2
PVC Processing Aid LP-40D	0.8-1.0
CaCO ₃	25-30

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

AM-603 should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.



PVC Impact Modifier AM-81

Product Description

AM-81 is a new high performance acrylic based impact modifier developed by our dedicated technical team of professionals. This new type of impact modifier is a copolymer of HDPE and acrylic acid and has the basic features of CPE, but much higher impact strength than CPE while the glass transition temperature is far lower than CPE. These attributes, in addition to improved weathering resistance, uniquely makes AM-81 an excellent high performance impact modifier.

Typical Specifications

	AM-81
Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.5

Applications

- ◆ Extrusion: rigid profiles, sheets and pipes
- ◆ Injection Moulding: fittings, general moulding

Benefits

- ◆ Good Weatherability, Good Surface Gloss
- ◆ Low-Temperature Impact, High Output

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

AM-81 should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.



Acrylic Impact Modifiers LS Series

Product Description

LS series Impact Modifiers are weatherable Acrylic Impact Modifiers used in rigid PVC products. These are "core-shell" structure modifiers, with cross-linked poly butyl acrylic as "core" and grafted methyl methacrylate as "shell". They not only improve impact resistance performance of the product, but also increase the surface gloss of the product, and especially the weatherability of the product. These are especially suitable for outdoor products and broadly used in PVC profiles, sheets, boards, pipes, pipe fittings, etc.

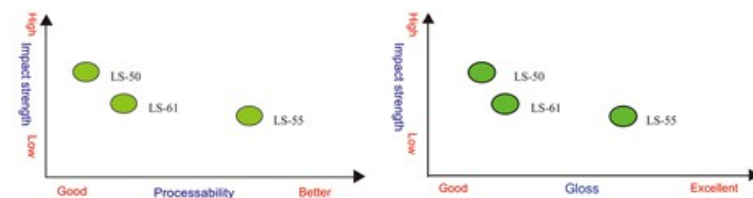
Typical Physical Properties

Index	LS-61	LS-55	LS-50
Appearance	White flowing powder		
Bulk Density (g/cc)	0.40-0.55	0.45-0.56	0.35-0.55
Volatiles Content (%)	≤1.5		
Particle size (40 mesh passing percentage)	≥98%		

Benefits

Compared to CPE and other impact modifiers, AIM LS series products have the following advantages:

- ◆ Imparts excellent low-temperature impact resistance. Excellent weatherability.
- ◆ Improves product surface gloss greatly. Wide processing range for high speed extrusion.
- ◆ Improves impact strength and imparts good rigidity of product.



Properties

Product	Impact property(23℃)	Impact property(-10℃)	Product characteristic
LS-50	*****	*****	Excellent low-temperature impact properties
LS-55	****	*****	Excellent processability
LS-61	*****	*****	Excellent impact properties

Applications

Item	LS-50	LS-61	LS-55
Recommended Dosage	Impact Modifier	4~7	4~7
	Processing Aid	0.5~1.0	0.5~0.8
			0

PVC Lubricating Processing Aids LP Series

Product Description

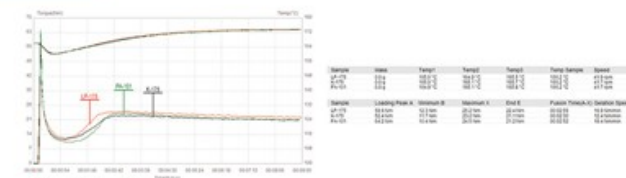
LP series lubricating processing aids are lubricating processing aids with a unique function, suitable for all PVC products such as sheets, film, bottles, profiles, pipes, pipe fittings, foam sheets, etc.

Adding small amount of this product during PVC processing & molding procedure can give excellent metal release properties & better fluidity, extend runtime greatly, increase output, and endow better surface gloss to the product. It can be used individually, but more commonly is used together with other processing aids for promoting fusion of PVC resin.

Typical Specifications

	LP-175
Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.0
Molecular Weight (million)	<1.0
Viscosity (η)(Ubbelohde Viscometer)	0.4-1.0

Performance



Applications

Item	Metal release	Transparency	Tone	Fusion property
Lubricating LP series	Good	Good	Good	Good
Stearic Acid	Fair	Good	Bad	Good
Oxidized PE Wax	Good	Fair	Fair	Bad

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LP-175 should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

Acrylic Processing Aids LP -21 LP-23

LP-21 LP-23 are general purpose processing aid based on medium-high molecular weight. These are acrylic copolymer that improve the processability and the performances of rigid PVC formulations. LP-21 LP-23 are also extremely cost-effective, requiring only very low addition levels for high-quality results.

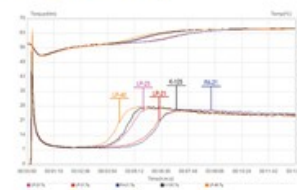
Benefits

- ◆ Excellent clarity and surface quality
- ◆ Accelerate fusion rate, increase productivity
- ◆ Decrease processing temperature

Typical Specifications

	LP-21	LP-23
Appearance	White, free flowing powder	
Powder Density (g/cc)	>0.40	
Particle size (on 40 mesh) (%Max)	≤2.0	
Volatiles (%Max)	≤1.5	
Viscosity (n)/Ubbelohde Viscometer	4.5-5.0	4.8-5.3

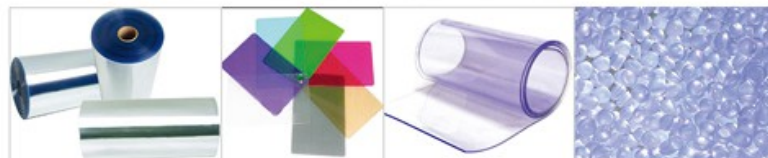
Rheological Property



Sample	Wind	Temp1	Temp2	Temp3	Temp Average	Speed
uA-2)	0.0 g	103.1 °C	103.1 °C	103.1 °C	103.1 °C	4.1 g/min
uA-3)	0.1 g	103.1 °C	103.1 °C	103.1 °C	103.1 °C	4.1 g/min
uA-7)	0.1 g	103.1 °C	103.1 °C	103.1 °C	103.1 °C	4.1 g/min
uA-13)	0.1 g	103.1 °C	103.1 °C	103.1 °C	103.1 °C	4.1 g/min
uA-15)	0.1 g	103.1 °C	103.1 °C	103.1 °C	103.1 °C	4.1 g/min

Performance and Dosage

	Properties					Recommended dosage(phr)			
	Transparency	Promote fusion	Melt strength	Rheology/Flow	Dispersivity	Sheets	Profiles	Pipes	Fittings
LP-21	++	++	+++	++++	++++	1.0-1.5	1.0-1.5	1.0-1.8	1.0-1.8
LP-23	++	+++	+++	++++	++++	1.0-1.5	1.0-1.5	1.0-1.8	1.0-1.8



25kg or 20kg bags and 250kg or 500kg jumbo bags.

LP-21 LP-23 should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

Acrylic Processing Aids LP-40 LP-50

Product Description

The addition of PVC processing aids LP-40 LP-50 to rigid PVC formulations are processing aids based on a high molecular weight polymethacrylate resin. LP-40 LP-50 improve the processability and the performances of PVC formulations.

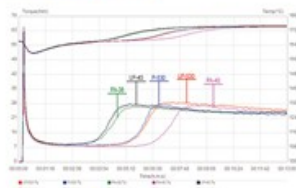
Performance

- ◆ Promotes gelation of PVC, Improves hot-melt strength and visco-elasticity. Stabilizes the microcells generated by blowing agents to achieve the low density and high strength of the foam. Increases the surface quality of PVC products.
- ◆ Better dispersion of additives into PVC, more homogenous melt of PVC, etc. LP-40, LP-50 have been used in weatherable applications and are widely used in PVC building products.

Typical Specifications

	LP-40	LP-50
Appearance	White, free flowing powder	
Powder Density (g/cc)	>0.40	
Particle size (on 40 mesh) (%Max)	≤2.0	
Volatiles (%Max)	≤1.0	
Viscosity (η)(Ubbelohde Viscometer)	6.0~7.5	8.5~11.0
Molecular Weight (million)	>2.0	>2.0

Rheological Property



Sample	Mass	Temp	Temp	Temp	Temp	Temp	Temp
LP-40	1.0g	160°C	160°C	160°C	160°C	160°C	160°C
LP-50	1.0g	180°C	180°C	180°C	180°C	180°C	180°C

Sample	Leaking Point (h)	Minimum D	Minimum L	End E	Fusion Time (h)	Extrusion Speed
LP-40	10 min	1.0mm	0.5mm	0.5mm	10 min	10 min
LP-50	10 min	1.0mm	0.5mm	0.5mm	10 min	10 min

Applications

	Properties					Recommended dosage(phr)		
	Metal release	Promote fusion	Melt strength	Melt expansion	Dispensivity	Profiles, pipes	Foam pipes	WPC
LP-50	***	***	***	***	***	1.0-1.2	6.0-10.0	5.0-8.0
LP-40	***	***	***	***	***	0.8-1.0	5.0-8.0	5.0-7.0

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LP-40 LP-50 should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

Acrylic Processing Aid LP-40A

Product Description

LP-40A is a high molecular weight acrylic copolymer processing aid for PVC applications including foam, high output extrusion and wood composites. It efficiently improves the quality of cellular products by reducing foam density and maintaining consistent cell structure.

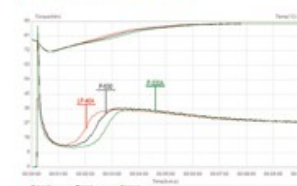
Typical Specifications

Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.5
Viscosity (η)(Ubbelohde Viscometer)	5.5-7.5

Applications

- ◆ PVC foam core pipes
- ◆ PVC foam profiles
- ◆ PVC foam reinforced composites
- ◆ Wood plastics composites

Rheological Property



Sample	Mass	Temp	Temp	Temp	Temp	Temp	Temp
LP-40A	1.0g	180°C	180°C	180°C	180°C	180°C	180°C

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LP-40A should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.



PVC Processing Aid LP-40D

Product Description

LP-40D is a medium molecular weight acrylic copolymer processing aid for PVC applications including high output extrusion and injection. It efficiently improves the melt elasticity, melt strength and sizing of rigid PVC.

Typical Specifications

Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.5
Viscosity (η)(Ubbelohde Viscometer)	6.0-7.5

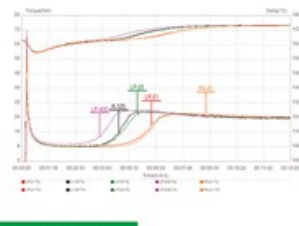
Applications

- ◆PVC profiles, sheets
- ◆PVC pipes, fittings
- ◆PVC sidings, panels, fences

Benefits

- ◆Wide processing window, higher processing efficiency
- ◆Faster fusion and high melt elasticity and strength
- ◆Surface smoothness and gloss. Easy metal release

Rheological Property



Sample	Wt%	Temp1	Temp2	Temp3	Temp4	Temp5	Temp6	Temp7
LP-40D	0.1%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40D	0.2%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40D	0.5%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40D	1.0%	180°C	185°C	190°C	195°C	200°C	205°C	210°C

Sample	Wt%	Temp1	Temp2	Temp3	Temp4	Temp5	Temp6	Temp7
LP-40D	0.1%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40D	0.2%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40D	0.5%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40D	1.0%	180°C	185°C	190°C	195°C	200°C	205°C	210°C

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LP-40D should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

PVC Processing Aid LP-40E

Product Description

LP-40E is a high molecular weight acrylic copolymer processing aid for PVC applications including foam core pipes, profiles, panels, sheets. It efficiently improves the quality of cellular products by reducing foam density and maintaining consistent cell structure.

Typical Specifications

Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.5
Viscosity (η)(Ubbelohde Viscometer)	6.0-7.0

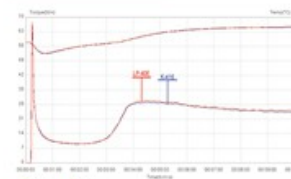
Applications

- ◆PVC foam core pipes
- ◆PVC foam profiles
- ◆PVC foam reinforced composites
- ◆Wood plastics composites

Benefits

- ◆Wide processing window
- ◆High Melt elasticity and strength
- ◆Lower Density
- ◆Good metal release

Rheological Property



Sample	Wt%	Temp1	Temp2	Temp3	Temp4	Temp5	Temp6	Temp7
LP-40E	0.1%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40E	0.2%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40E	0.5%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40E	1.0%	180°C	185°C	190°C	195°C	200°C	205°C	210°C

Sample	Wt%	Temp1	Temp2	Temp3	Temp4	Temp5	Temp6	Temp7
LP-40E	0.1%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40E	0.2%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40E	0.5%	180°C	185°C	190°C	195°C	200°C	205°C	210°C
LP-40E	1.0%	180°C	185°C	190°C	195°C	200°C	205°C	210°C

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LP-40E should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

PVC Processing Aid LP-20E

Product Description

LP-20E processing aid is an acrylic based general purpose additive to improve the processing characteristics of Rigid PVC. When used in rigid PVC, processing behavior is markedly improved, such as melt strength, faster fusion, surface gloss & without plate out.

Typical Specifications

Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.0
Viscosity (η)(Ubbelohde Viscometer)	2.5-3.5

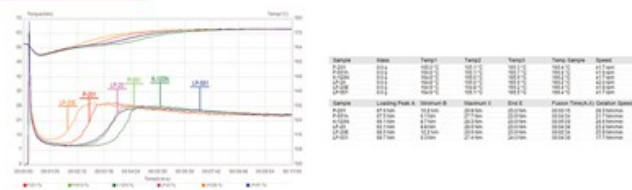
Benefits

- ◆Excellent clarity and surface quality. Accelerate fusion rate, increase productivity
- ◆Decrease processing temperature. Good metal release

Application

- ◆Calendering: rigid & semi-rigid films & sheets
- ◆Blow Moulding: bottles
- ◆Extrusion: rigid profiles, sheets and pipes
- ◆Injection Moulding: fittings, general moulding

Rheological Property



Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LP-20E should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

PVC Processing Aid LP-40J

Product Description

LP-40J is a high molecular weight acrylic copolymer processing aid for PVC applications including foam core pipes, profiles, panels, sheets. It efficiently improves the quality of cellular products by reducing foam density and maintaining consistent cell structure.

Typical Specifications

Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.5
Viscosity (η)(Ubbelohde Viscometer)	6.5-8.0

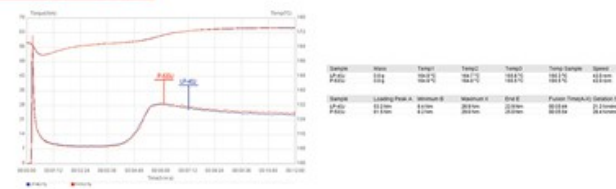
Benefits

- ◆Wide processing window
- ◆High Melt elasticity and strength
- ◆Good metal release

Application

- ◆PVC foam core pipes
- ◆PVC foam profiles, panels, sheets
- ◆PVC foam reinforced composites

Rheological Property



Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LP-40J should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

Ultra-High Molecular Weight Processing Aids
LP-90 LP-91 LP-92

Product Description

LP-90 LP-91 LP-92 are new ultra-high molecular weight acrylic processing aid for rigid PVC and high quality foam applications. LP-90 LP-91 LP-92 give the following performance properties-Low torque, faster fusion, high melt strength and expansion.

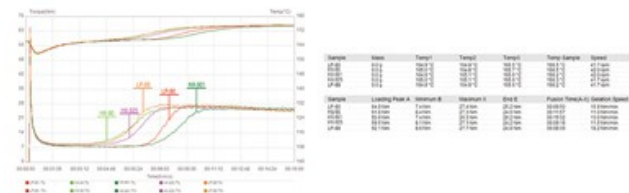
Performance

- ◆ Improve the processing window and enhance impact strength through faster fusion control for rigid PVC applications. Melt elasticity, melt strength and sizing can be improved through the use of LP-90 LP-91 LP-92.
- ◆ Its high foaming efficiency enable converters to meet the most demanding requirements in foam core pipes and foam profile formulations using lower addition levels.

Typical Specifications

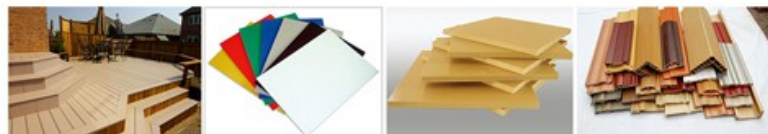
	LP-90	LP-91	LP-92
Appearance		White, free flowing powder	
Powder Density (g/cc)		>0.40	
Particle size (on 40 mesh) (%Max)		≤2.0	
Volatiles (%Max)		≤1.5	
Viscosity (η)(Ubbelohde Viscometer)	10.5-12.5	11.0-13.0	11.5-14.0
Molecular Weight (million)	>5.0	>5.0	>5.0

Rheological Property



Applications

	Properties						Recommended dosage(phr)			
	Metal release	Promote fusion	Melt strength	Melt expansion	Dispensivity	Residual Property	Profiles, pipes	Foam boards	Foam pipes	WPC
LP-90	**	****	****	****	****	*****	0.6-0.8	9.0-11.0	5.0-6.0	6.0-8.0
LP-91	**	****	*****	****	***	***	0.5-0.6	9.0-10.0	4.0-5.0	5.0-7.0
LP-92	**	*****	*****	*****	**	**	0.5-0.6	8.0-10.0	4.0-5.0	5.0-7.0



PVC Processing Aids LS Series

Product Description

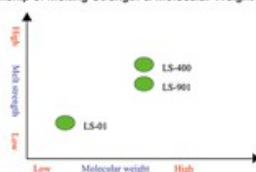
LS series products are Styrene-Acrylonitrile copolymers developed by our company using advanced polymerization technology and drying techniques. These products can improve PVC gelation, fusion fluidity and processing performance and are broadly used in PVC profiles, sheets, pipes, pipe fittings and foam products.

Typical Specifications

	LS-01	LS-901	LS-400
Appearance	White free flowing powder		
Powder Density (g/cc)	>0.4		
Particle size (on 40 mesh) (%Max)	≤2.0		
Viscosity (η)(Ubbelohde Viscometer)	3.0-4.0	9.0-12.0	10.0-13.0
Volatiles (%Max)	≤1.5		
Molecular Weight (million)	>1.0	>3.0	>3.0

Performance

The Relationship of Melting Strength & Molecular Weight of the Product



Applications

Item	LS-01			LS-400		LS-901	
Application	Pipe	Pipe fitting	Profile, sheet	Foam pipe	Foam sheet	Foam pipe	Foam board
Recommended dosage (phr)	0.5~2.0	2.0~3.0	1.5~2.5	5.0~8.0	7.0~10.0	5.0~8.0	7.0~10.0
Properties	High output	High gloss	Even bubbles	Low density	Fast Fusion		

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LS series should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

PVC Processing Aid LS-01A7

Product Description

LS-01A7 is an acrylic based general purpose additive to improve the processing characteristics of Rigid PVC. When used in Rigid PVC, processing behavior is markedly improved, such as melt strength, faster fusion & takeoff, surface gloss & without plateout.

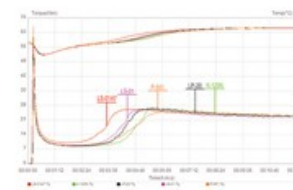
Typical Specifications

Appearance	White, free flowing powder
Powder Density (g/cc)	>0.40
Particle size (on 40 mesh) (%Max)	≤2.0
Volatiles (%Max)	≤1.5
Viscosity (η)(Ubbelohde Viscometer)	2.5-4.0

Application

LS-01A7 is an excellent general purpose processing aid that promotes a wide processing window, providing the flexibility to limit the number of processing aids for Rigid PVC. Such as PVC pipes, fittings, window profiles, fences and so on. The normal addition is 1.0-3.0phr.

Rheological Property



Sample	Name	Temp1	Temp2	Temp3	Temp Range	Speed
LS-01A7	LS-01A7	170°C	180°C	190°C	170-190°C	20 RPM
LS-01A7	LS-01A7	180°C	190°C	200°C	180-200°C	20 RPM
LS-01A7	LS-01A7	190°C	200°C	210°C	190-210°C	20 RPM
LS-01A7	LS-01A7	200°C	210°C	220°C	200-220°C	20 RPM
LS-01A7	LS-01A7	210°C	220°C	230°C	210-230°C	20 RPM
LS-01A7	LS-01A7	220°C	230°C	240°C	220-240°C	20 RPM

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

LS-01A7 should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.

Chlorinated Polyethylene (CPE135A)

Product Description

Chlorinated polyethylene (CPE) is a high molecular elastomeric material that is chlorinated by HDPE. It is white powder and innocuous. It has excellent anti-flaming, weatherability, lower-temperature flexibility and impact strength, etc. It can be blended with other plastics and rubber, mainly used as PVC impact modifier.

Technical Data

Item	Unit	CPE135A
Chlorine Content	%	35 ±2
Thermal Decomposition Temperature	°C	≥ 165
Bulk Density	g/cc	≥0.50
Volatiles content	%	<0.5
Particle size (20 mesh passing percentage)	%	≥99
Impurity Particle	50g	≤10
Shore Hardness	-	≤65
Tensile Strength	MPa	≥6.0

Applications

It is widely used in PVC profiles, pipes, pipe fittings, sheets, etc.

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

CPE135A should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.



PVC Lubricant L-60 L-74

Product Description

L-60 is based on neutral dicarboxylic acid ester of saturated fatty alcohols. It is a white or slight yellow flake or free-flowing powder, odourless. It is insoluble in water but soluble in tributyl phosphate (TBP) and trichloromethane. Its melting point is 42-48°C, flash point > 225°C, volatiles (96 hour / 90°C) <1%.

L-74 is based on high molecular, multi-functional fatty acid esters (complex ester). It is white or slight yellow debris or free-flowing powder, odourless. It is insoluble in water but soluble in tributyl phosphate (TBP) and trichloromethane. Its melting point is 48-56°C, flash point > 230°C, volatiles (96 hour / 90°C) <1%.

Typical Specifications

Item	Unit	L-60	L-74
Density	g/cm ³ (80°C)	0.86-0.89	0.88-0.93
Acid value	mg KOH/g	<10	<12
Iodine value	g I ₂ /100g	<1	<2
Viscosity	mPa.S(80°C)	10-16	40-80
Refractive index	(80°C)	1.453-1.463	1.420-1.470

Performance

L-60 is a lubricant used in rigid PVC, it is highly compatible all-round lubricant also other additives. It is applicable to many kinds of processing conditions. L-60 can promote plasticization of melt, improve impact strength and surface gloss. It can be widely used in transparent sheets, window profiles, sheets and pipes. Dosage is about 0.3-1.2PHR, under special cases the amount can be increased.

L-74 is external lubricant for PVC processing. It is suitable for processing rigid/soft PVC granules, sheets, profiles, shrink film and calendared film. It offers good releasing properties, good efficiency as a mould releasing agent with paste processing and also improves flowability. It can also reduce balancing torque and improve surface gloss. Dosage is about 0.3-0.8PHR (transparent) or 0.3-0.8PHR (opaque), under special cases the amount can be increased.

Standard Packaging

25kg or 20kg bags and 250kg or 500kg jumbo bags.

Storage & Handling

L-60 L-74 should be kept away from flames and other sources of heat. The Product should be stored in cool and ventilated area. Adequate precautions should be taken to keep all dust levels below values that are hazardous to health and safety. In case of eye or skin contacts, eyes should be flushed immediately with fresh water to remove dust particles and affected skin areas should be washed with soap and water.



推荐配方 RECOMMENDED FORMULATIONS

波纹管 PVC Corrugated Pipe

配方 Ingredient	PHR
PVC (K: 65 ~ 68)	100
复合铅 Lead Based Complex Stabilizer	4.0~6.0
硬脂酸 Stearic Acid	0.5
抗冲改性剂 Acrylic Impact Modifier LS-61	4.0~6.0
加工助剂 PVC Processing Aid LP-40	1.5
钛白粉 Titanium Dioxide	3.0~5.0
碳酸钙 CaCO ₃	15.0~20.0
PE蜡 PE Wax	0.10~0.30
硬脂酸钙 Calcium Stearate	0.40~0.60

PVC型材 Window & Door Profile

配方 Ingredient	PHR
PVC (K: 65 ~ 68)	100
有机锡 TM-181	0.8~1.2
加工助剂 PVC Processing Aid LP-40	1.0
抗冲改性剂 Acrylic Impact Modifier LS-61	7.0
硬脂酸 Stearic Acid	0.6~0.8
PE蜡 PE Wax	0.8~1.2
氧化聚乙烯蜡 Oxidized PE Wax	0.10~0.20
碳酸钙 CaCO ₃	8.0~15.0
钛白粉 Titanium Dioxide (Rutile)	4.0~5.0

建筑模板 WPC Formwork

配方 Ingredient	PHR
PVC (K: 58~60)	100
木粉 WOOD	10
CPE 135A	2.0~3.0
加工助剂 Lubricating Processing Aid LP-175	0.5~1.0
AC发泡剂 AC Blowing Agent	0.4~0.5
碳酸钙 CaCO ₃	15~20
发泡调节剂 PVC Processing Aid LP-90 or LP-530	8.0~10.0
复合铅 Lead Based Complex Stabilizer	4.0~4.5
润滑剂 Lubricant L-60	0.7~0.8
硬脂酸 Stearic Acid	0.5~0.7
NC发泡剂 NC Blowing Agent	1.2~1.3
PE蜡 PE Wax	0.4~0.6
润滑剂 Lubricant OA-6	0.4~0.5

PVC扣板 PVC Ceiling Panel

配方 Ingredient	PHR
PVC (K: 57)	100
复合铅 Lead Based Complex Stabilizer	3.0~4.0
加工助剂 PVC Processing Aid LP-23	1.5~2.0
加工助剂 Lubricating Processing Aid LP-175	0.5~1.0
硬脂酸 Stearic Acid	0.4~0.5
PE蜡 PE Wax	0.5~0.6
增塑剂 DOP	3.0~4.0
钛白粉 Titanium Dioxide	4.5~5.0
碳酸钙 CaCO ₃	60~80
CPE 135A	7.0~8.0

发泡板 PVC Foam Board

配方 Ingredient	PHR
PVC (K: 57)	100
钙/锌稳定剂 Ca/Zn Stabilizer	5.0~5.5
发泡调节剂 PVC Processing Aid LP-530 or LP-90	8.0~12.0
加工助剂 Lubricating Processing Aid LP-175	1.5~2.0
润滑剂 Lubricant L-60	0.6~0.8
润滑剂 Lubricant OA-6	0.5~0.6
PE蜡 PE Wax	0.3~0.4
NC发泡剂 NC Blowing Agent	1.2~1.5
AC发泡剂 AC Blowing Agent	0.6~0.8
碳酸钙 CaCO ₃	15.0~20.0
回收料 Recycle	20.0

发泡板 PVC Foam Board

配方 Ingredient	PHR
PVC (K: 57)	100
CPE 135A	6.0
加工助剂 Lubricating Processing Aid LP-175	1.5~2.0
加工助剂 PVC Processing Aid LS-01	1.0~1.5
发泡调节剂 PVC Processing Aid LP-530 or LP-90	8.0~10.0
AC发泡剂 AC Blowing Agent	0.7~0.8
NC发泡剂 NC Blowing Agent	1.2~1.5
碳酸钙 CaCO ₃	10.0~20.0
PE蜡 PE Wax	0.4~0.5
复合铅 Lead Based Complex Stabilizer	4.5~5.0
硬脂酸 Stearic Acid	0.1~0.2
润滑剂 Lubricant L-60	0.6~0.8
润滑剂 Lubricant 316A	0.3~0.4
回收料 Recycle	20.0

型材 Window & Door Profile

配方 Ingredient	PHR
PVC (K: 65 ~ 68)	100
复合铅 Lead Based Complex Stabilizer	5.0
加工助剂 PVC Processing Aid LP-40	0.5 ~ 1.0
抗冲改性剂 Acrylic Impact Modifier LS-61	7.0
硬脂酸 Stearic Acid	0.10 ~ 0.30
氧化聚乙烯蜡 Oxidized PE Wax	0.10 ~ 0.30
碳酸钙 CaCO ₃	5.0 ~ 10.0
钛白粉 Titanium Dioxide	5.0 ~ 8.0

穿线管 PVC Cable Conduit

配方 Ingredient	PHR
PVC (K: 57~60)	100
复合铅 Lead Based Complex Stabilizer	4.0
抗冲改性剂 Impact Modifier AM-603	8.0~10.0
加工助剂 PVC Processing Aid LP-40	0.8~1.0
石蜡 Paraffin	0.8~1.0
硬脂酸 Stearic Acid	0.5~0.8
增塑剂 DOP	1.0~2.0
碳酸钙 CaCO ₃	30~50

发泡管 PVC Foam Pipe

配方 Ingredient	PHR
PVC (K: 57)	100
有机锡 TM-950F	0.6~1.2
发泡调节剂 PVC Processing Aid LP-530	7.0~8.0
加工助剂 Lubricating Processing Aid LP-175	1.0~1.5
加工助剂 PVC Processing Aid LS-01	1.0~1.2
硬脂酸钙 Calcium Stearate	0.8~1.0
氧化聚乙烯蜡 Oxidized PE Wax	0.15~0.20
钛白粉 Titanium Dioxide	1.5~2.0
AC发泡剂 AC Blowing Agent	0.4~0.5
碳酸钙 CaCO ₃	5.0~8.0
润滑剂 Lubricant 316A	0.2~0.3
回收料 Recycle	20.0

管材 PVC Pipe

配方 Ingredient	PHR
PVC (K: 65~68)	100
复合铅 Lead Based Complex Stabilizer	2.5~3.0
加工助剂 PVC Processing Aid LP-23	1.0~1.5
抗冲改性剂 Acrylic Impact Modifier LS-61	3.0~5.0
硬脂酸 Stearic Acid	0.2~0.3
PE蜡 PE Wax	0.3~0.4
钛白粉 Titanium Dioxide	1.5~2.0
碳酸钙 CaCO ₃	10.0~15.0

管件 PVC Pipe Fitting

配方 Ingredient	PHR
PVC (K: 57)	100
钙/锌稳定剂 Ca/Zn Stabilizer	4.0~5.0
加工助剂 PVC Processing Aid LP-23	2.0~3.0
抗冲改性剂 Impact Modifier MBS LB-156	2.0~3.0
硬脂酸 Stearic Acid	0.2~0.3
PE蜡 PE Wax	0.2~0.3
增塑剂 DOP	3.0~4.0
钛白粉 Titanium Dioxide	1.5~2.0
碳酸钙 CaCO ₃	10~15
颜料 Pigment	Proper amount

透明片 PVC Transparent Sheet

配方 Ingredient	PHR
PVC (K: 58~60)	100
有机锡 TM-181FS	1.2~1.5
加工助剂 PVC Processing aid LP-20 or LP-551	0.8~1.2
抗冲改性剂 Impact Modifier MBS LB-136	4.0~6.0
润滑剂 PVC Lubricant L-74	0.6~1.0
润滑剂 PVC Lubricant L-60	0.8~1.2
颜料 Pigment	Proper amount

注：以上配方仅供参考，详细情况请与我们的技术人员进行联系。

Remarks: Our company offers complete technical service and assistance. Our Institute and personnel are ready to assist you in any phase of your evaluation, from formulation development to end product testing.

安全与包装 SAFE HANDLING AND PACKAGING

本公司产品必须远离一切明火，生产时粉尘量应达到安全标准。避免物料落入眼内，否则应立即用清水清洗。皮肤接触到物料，应用肥皂及清水冲洗。

本公司产品密封于塑料袋，然后装入编织袋或者牛皮纸袋中，并附有产品合格证，包装袋外部注明：商标、生产厂名、产品净重、产品批号。每袋25公斤或者20公斤，也可以根据客户的要求使用250公斤或者500公斤大包装。

本公司产品为无毒、无腐蚀性固体粉末，属非危险品，运输按非危险品处理，应严格防止曝晒、雨淋。

本公司产品建议贮存于室内阴凉通风处，储存温度低于45℃，保存期2年，2年后经性能测定后，如无变化，仍可使用。

Eliminate all ignition sources and it will be burn at elevated temperatures.

Eye contact: Wash eyes with water. Consult a physician if irritation Persists.

Skin contact: Wash affected skin areas thoroughly with soap and water.

Packed in airproof plastic bag, then in woven bags or kraft paper bags with quality certificate, the outside of bags are marked with brand name, company name, net weight of products, lot No. etc. Packaged in 25 kg or 20kg bags and 250 kg or 500 kg super-sacks.

This material is non-dangerous goods for land, air and marine transportations.

Material can burn, recommended indoor storage with automatic sprinklers.

Avoid all ignition sources. The recommended maximum storage temperature for this material is 45℃.

The period of validity: two years.



分子量表 MOLECULAR WEIGHT OF PVC PROCESSING AIDS

700↑				
600	LP-92			
500	LP-91 LP-90			PA-75
400	LP-88 LP-530 LP-802			PA-70
300	LP-50			PA-630
(Mwx10 ⁴)				
200	LP-40A LP-40 LP-40D LP-23	PA-930	K-440 K-400 K-125	P-530A P-540A
100	LP-21	PA-828		PA-40 PA-30 PA-21
0	LP-20 LP-551 LP-175	PA-910	K-120 K-175	P-551 P-770 P-710
	Ruifeng	LG Chem	DOW	Mitsubishi Rayon Kaneka