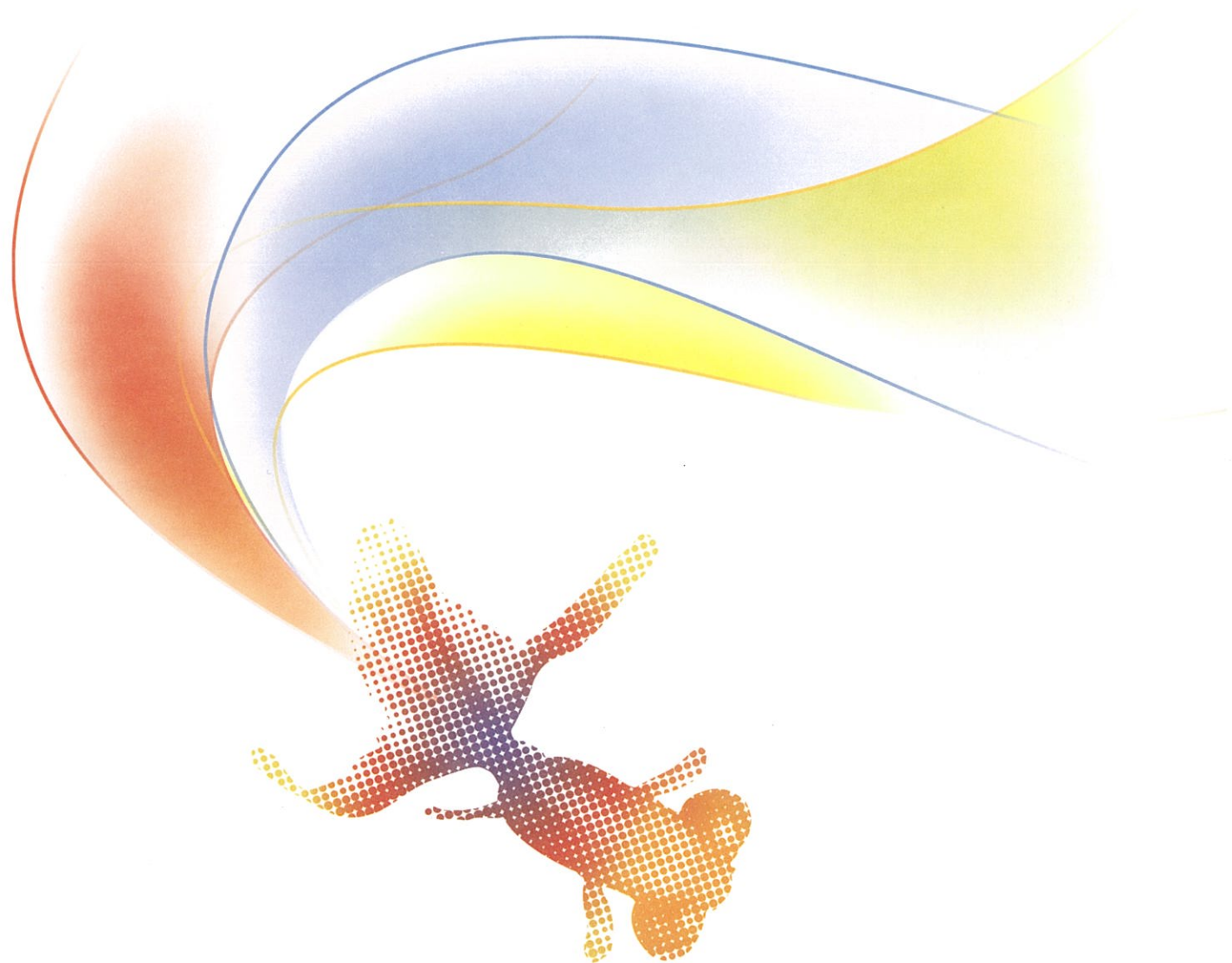


BITONER
HYDROCARBON
RESINS

百色源树脂



Qingdao Free Trade Zone Bitoner Int`L Corp.



绿色自然生活的倡导者
Supporters of the Natural Life

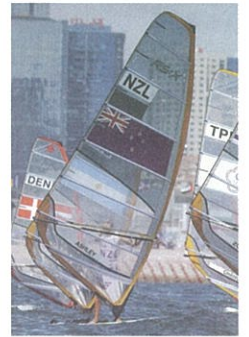
To Be Your Reliable Supplier From China
百色源树脂-值得您信任的石油树脂品牌。



Our Location



Qingdao is the host city for the 29th Olympic Sailing Regatta in 2008



Introduction

QINGDAO FREE TRADE ZONE BITONER INT`L CORP.
Bitoner Resin is one of leading Chinese suppliers of hydrocarbon resin including C5 resin, C9 resin and C5&C9 copolymer resin. With decades of experiences specializing in this line, Bitoner Resin has been enjoying popularity in almost 40 countries and areas, including USA, Europe, South America, Southeast Asia, Australia, Middle East, etc. Bitoner Resin has gained approvals of well-known companies in adhesives, paints and tyre industries.

Bitoner Resin established modern laboratory with various facilities and experienced staff, working on offering customers reliable quality and professional services. Besides physical & chemical properties, we make application tests such as paints, adhesives, printing ink, etc. So that Bitoner Resin can supply consistent quality according to customer's requests.

公司简介

百色源树脂是国内外知名的石油树脂供应商，产品畅销于欧洲，北美，南美，中东，东南亚，澳洲等40多个国家及地区。目前主要产品有碳五石油树脂，碳九石油树脂，及碳五碳九共聚石油树脂。百色源树脂已得到涂料、胶粘剂和橡胶等行业国际知名公司的认可和应用。

百色源树脂拥有现代化的实验室和专业的技术研究团队，致力于石油树脂的质量控制，应用检测和技术创新，为广大客户提供质量稳定可靠的产品和专业化的服务指导。百色源实验室在醇酸漆，清漆，胶粘剂，路标漆及油墨等领域的应用测试在国内石油树脂行业处于领先地位，可根据客户需求供应质量一致可靠的产品。

BITONER C5 & C9 CO-POLYMER RESIN

百色源碳五碳九共聚树脂



本系列产品有碳五改性碳九石油树脂及碳九改性碳五石油树脂。

碳五改性碳九石油树脂：

作为增粘树脂及流变性修饰剂，尤其适用于热熔胶、（热熔）压敏胶及溶剂型胶粘剂。与很多树脂及聚合物相容性较好，如EVA、天然橡胶、SIS、SBS、SEBS等。

碳九改性碳五石油树脂：

提高了与不同热塑性弹性体的相容性，其粘性更佳。主要用于压敏胶、胶带、热熔胶等。窄的分子宽布使其在SIS基热熔压敏胶配方中表现更加优异。

该系列产品还适用于汽车轮胎和橡胶产品。

Products Description

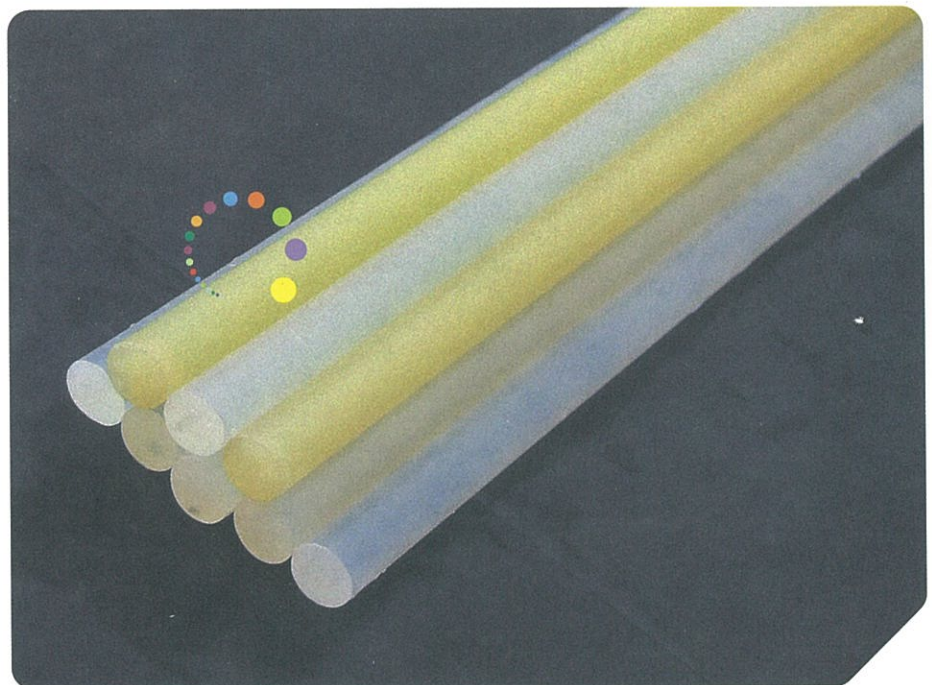
This product line includes aliphatic-modified aromatic resins and aromatic-modified aliphatic resins.

Aliphatic modified aromatic resins are particularly suitable for uses as tackifying and rheological property-modifying resins in hot melt adhesives, pressure sensitive adhesives and solvent adhesives. They are compatible with a broad range of resins and polymers, such as EVA, Natural rubber, SIS, SBS, SEBS.

Aromatic modified aliphatic resins enhance compatibility in various elastomers and can provide increased specific adhesion and tack for applications that require improved performance off of low-energy surfaces and recycled corrugated cardboard.

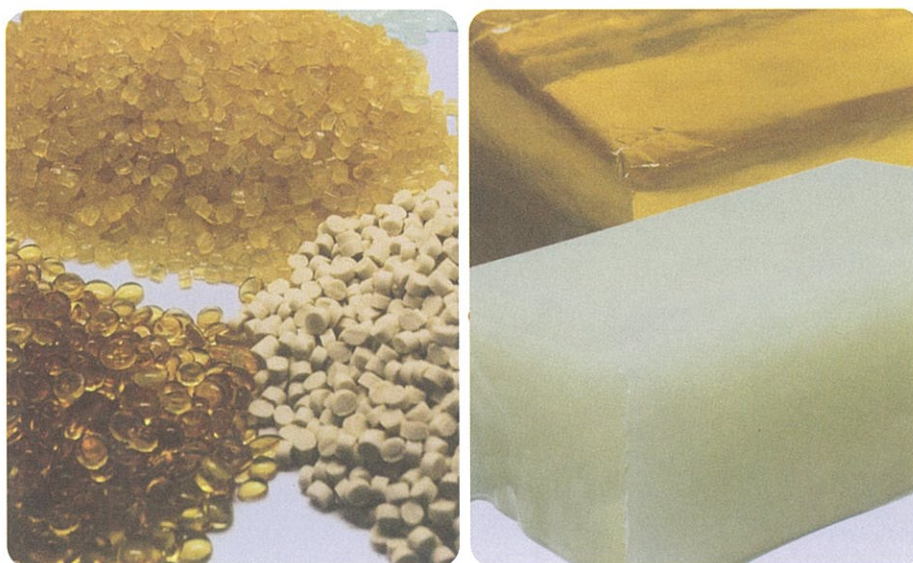
They are mainly used as tackifying resins in pressure sensitive adhesives, packing tapes, hot melt adhesives. Narrow molecular weight distribution enable them to be best resin for use in SIS based high performance formulations.

This resin is also good choice as processing agent for high grade tire and rubber products.



Key Characteristics

- Excellent compatibility with EVA, Natural rubber, SIS, SEBS, SBS.
- Low molecular weight
- Good heat resistance
- Excellent peel and tack properties
- Low volatility and low odor
- Water resistance



Applications / 应用

Applications 用途	Main Components 主要成分	Suitable Bitoner C5&C9 Grades 适用产品
Hot Melt Adhesive/热熔胶	EVA	TR-100, TR-1090, TR-2080, C-2100,C-2120,C-2130
Packaging Tapes/包装胶带	NR, SIS, SBS	TR-1090, TR-2080, C-2100,C-2120,C-2130
Bookbinding/书籍装订		TR-100,TR-1090,C-2100
Pressure Sensitive Adhesive/压敏胶	NR, SIS, SBS	TR-100, TR-1090, TR-2080, C-2100,C-2120,C-2130
Rubber Compounding/橡胶产品	NR, SBR	TR-100;TR-1090,TR-2080, C-2100,C-2120,C-2130

Package: 25kgs net in kraft paper bag or 1000kgs net in bulk bags
 包装: 25公斤牛皮纸袋包装或吨袋包装

C5 Modified C9 Hydrocarbon Resin / 碳五改性碳九石油树脂

Item Unit 项目	Softening Point °C 软化点	Color Series Gardner 色号	Acid value mg KOH/g 酸值	Meit Viscosity 200 °C mpas 熔融粘度	Ash Content 灰分
Test Method	ASTM E 28	ASTM D 1544	ASTM D 974	ASTM D 3236	ASTM D 1063
TR-100	95-105	Max.5	Max.0.1	Max.150	Max.0.05%
TR-1090	95-105	Max.5	Max.0.1	Max.150	Max.0.05%
TR-2080	95-105	Max.5	Max.0.1	Max.150	Max.0.05%

C9 Modified C5 Hydrocarbon Resin / 碳九改性碳五石油树脂

Item Unit 项目	Softening Point °C 软化点	Color Series Gardner 色号	Acid value mg KOH/g 酸值	Meit Viscosity 200 °C mpas 熔融粘度	Ash Content 灰分
Test Method	ASTM E 28	ASTM D 1544	ASTM D 974	ASTM D 3236	ASTM D 1063
C-2100	95-105	Max.5	Max.0.3	Max.200	Max.0.05%
C-2120	95-105	Max.5	Max.0.3	Max.200	Max.0.05%
C-2130	95-105	Max.5	Max.0.3	Max.200	Max.0.05%

BITONER C5 HYDROCARBON RESIN

百色源碳五树脂



Products Description

This series are thermoplastic resins, obtained from polymerizing unsaturated aliphatic petroleum feedstock.

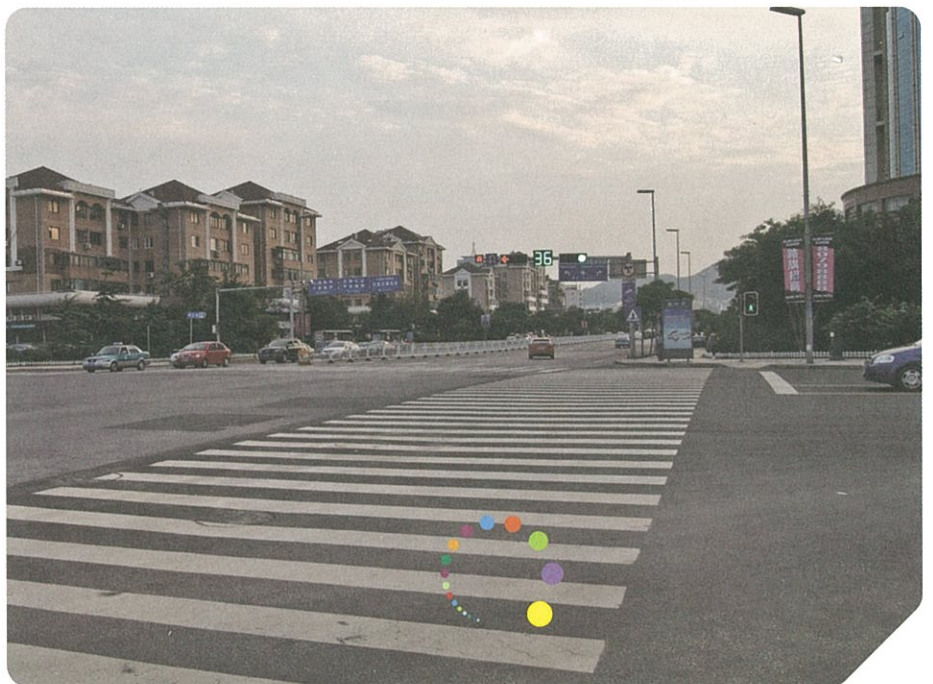
Characterized by compatible with various polymers and elastomers, excellent affinity with a wide range of fillers, excellent balance of tack and of adhesive and cohesive properties, good heat resistance, they are primarily used for thermoplastic road marking paints, hot melt adhesive and pressure sensitive adhesive, etc.

It is also available for them to be used as processing agent for the rubber compound, esp. car tire.

本系列为热塑性脂肪族树脂，主要由间戊二烯为主的碳五馏分聚合反应而来。该系列与各种聚合物及热塑性弹性体有极好的相容性。而且与填料亲和力强，初粘/持粘/内聚强度平衡性佳，热稳定性好，主要用于热塑性路标漆，热熔胶，(热熔)压敏胶等。此外，也可用于橡胶混炼时的增粘软化树脂。

Key Characteristics

- Excellent compatibility with various polymers
- Excellent chemical stability
- Good heat resistance and water resistance
- Excellent peel and tack properties
- Low volatility and low odor
- Low molecular weight distribution





Applications / 应用

Applications 用途	Main Components 主要成分	Suitable Bitoner C5&C9 Grades 适用产品
Hot Melt Adhesive/热熔胶	EVA,C9 Resin	BT-100, BT-1200,TP-200 BT-1500,BT-1120,BT-1100
Thermoplastic Road Marking Paints/热塑性马路划线漆	Fillers	BT-1102, BT-100
Packaging Tapes/包装胶带	NR, SIS, SBR	BT-1200,TP-200,TP-300,BT-1500,BT-1100
Bookbinding/书籍装订		BT-100, BT-1200,BT-1500
Pressure Sensitive Adhesive/压敏胶	NR, BR, SIS,	BT-1200,TP-200 BT-100,BT-1500,BT-1100
Tire and Rubber Compounding/轮胎和橡胶产品	NR, BR, SBR	BT-100, BT-1200,BT-1500,BT-1120
Asphalt Modification/沥青改性	Asphalts	BT-100, BT-1100,BT-1120
Wax compounding/蜡类产品	Wax	BT-100, BT-1500,BT-1100,BT-1120

Package: 25kgs net in kraft paper bag or 1000kgs net in bulk bags
包装: 25公斤牛皮纸袋包装或吨袋包装

C5 Aliphatic Hydrocarbon Resin / 碳五脂肪烃石油树脂

Item Unit 项目	Softening Point °C 软化点	Color Series Gardner 色号	Acid value mg KOH/g 酸值	Specific Gravity@25°C 比重	Melt Viscosity 200°C mPas 熔融粘度	Ash Content 灰分
Test Method	ASTM E 28	ASTM D 1544	ASTM D 974	ASTM D 71	ASTM D 3236	ASTM D 1063
Bitoner BT-100	95-105	Max. 4	Max. 0.3	0.92-0.99	Max.200	Max.0.05%
Bitoner BT-1102	95-105	Max. 5	1.0-2.0	0.92-0.99	Max.200	Max.0.05%
Bitoner BT-1200	95-105	Max. 3	Max. 0.3	0.92-0.99	Max.230	Max.0.05%
Bitoner BT-1500	95-105	Max. 3	Max. 0.3	0.92-0.99	Max.200	Max.0.05%
Bitoner BT-1120	95-105	Max. 4	Max. 0.3	0.92-0.99	Max.200	Max.0.05%
Bitoner BT-1100	95-105	Max. 4	Max. 0.3	0.92-0.99	Max.200	Max.0.05%

Modified C5 Hydrocarbon Resin / 萘烯改性碳五石油树脂

Item Unit 项目	Softening Point °C 软化点	Color Series Gardner 色号	Acid value mg KOH/g 酸值	Saponification Number 皂化值
Test Method	ASTM E 6493	ASTM D 6166	ASTM D 974	ASTM D 93
Bitoner TP-200	95-105	Max. 6	Max. 1.0	Max. 1.5
Bitoner TP-300	90-105	Max. 6	Max. 0.5	Max. 1.5

BITONER C9 HYDROCARBON RESIN

百色源碳九树脂



Products Description

This series are thermoplastic resins, obtained from polymerizing unsaturated aromatic petroleum feedstock.

They are clear yellowish resins, soluble in most industrial solvents, and particularly in aromatic and aliphatic ones. Wide compatibility with different polymers and resins makes the series excellent multi-purpose products.

The major applications are including paints, adhesives, printing ink, rubber and asphalt, etc. BP series is specially designed for adhesives application. Characterized by lighter color, less odor as well as wider compatibility & solubility, they are more suitable for hot melt adhesives, bookbinding, shoes adhesive and solvent adhesives, etc.

本系列产品由不饱和碳九芳烃聚合反应而来，为热塑性芳香烃树脂。溶于绝大多数溶剂尤其是芳香烃与脂肪烃类溶剂。与各种聚合物及树脂相容性好，用途广泛。其酸值及皂化值基本为零，不饱和度低，因而化学稳定性及耐水性较好。主要用途：涂料、油墨，胶粘剂，橡胶和沥青等。

BP系列产品凭借色号浅，气味小以及相容性和溶解度更优的特点，更适用于胶粘剂用途，尤其热熔胶，书籍装订，鞋胶和万能胶等。

Key Characteristics

- Various softening point
- Wide compatibility with other resins and polymers
- Water resistance
- Excellent resistance to acids, alkalis
- Outstanding solubility with most solvents





Applications / 应用

Applications	Main Components	Suitable Bitoner C9 Grades
Alkyd Paints / 醇酸漆	Long oil alkyd resin	BT-120, BP-120 BT-140, BT-120T
Offset Printing Ink / 平版胶印油墨	Phenolic resin	BT-120, BT-140, BT-150
Wood Protection / 木材保护		BT-120, BT-140, BP-120
Hot Melt Adhesive / 热熔胶	EVA, C5 resin	BP-90, BP-100, BP-120
Solvent Based Adhesive / 溶剂胶	Neoprene, Natural Rubber	BP-100, BP-120, BT-100, BT-120, BT-140, BP-140
Rubber Compounding / 橡胶产品	NR, SBR	BT-90, BT-100, BT-90T, BT-100T
Asphalt Modification / 沥青改性	Asphalt Modification	BT-100, BT-120, BT-140, BT-120T
Concrete Curing Agent / 混凝土固化剂	Wax, Solvents	BT-100, BT-120
Shinning Aluminium paste paints / 银浆漆		BP-100, BP-120, BT-120, BT-100, BT-120T
Shoes Adhesive / 鞋胶	EVA	BP-100, BP-120

Package: 25kgs net in kraft paper bag or 1000kgs net in bulk bags
 包装: 25公斤牛皮纸袋包装或吨袋包装

C9 Aromatic Hydrocarbon Resin 碳九芳香烃石油树脂

Item Unit 项目	Softening Point °C 软化点	Color Series Gardner 色号	Acid value mg KOH/g 酸值	Specific Gravity g/cm ³ 比重	Iodine Value gi/100g 碘值	Ash Content 灰分
Test Method	ASTM E 28	ASTM D 1544	ASTM D 974	ASTM D 71	ASTM D 3236	ASTM D 1063
C9 BT-90	90-100	7,8,9,10	Max. 0.1	1.07-1.13	Max.30	Max.0.05%
C9 BT-100	95-105	7,8,9,10	Max. 0.1	1.07-1.13	Max.30	Max.0.05%
C9 BT-120	115-125	7,8,9,10	Max. 0.1	1.07-1.13	Max.30	Max.0.05%
C9 BT-140	130-140	7,8,9,10	Max. 0.1	1.07-1.13	Max.30	Max.0.05%
C9 BT-150	140-150	5,6,7,8,9,10	Max. 0.1	1.07-1.13	Max.30	Max.0.05%

C9 Aromatic Hydrocarbon Resin-Adhesive Series 碳九芳香烃石油树脂-胶粘剂专用

Item Unit 项目	Softening Point °C 软化点	Color Series Gardner 色号	Acid value mg KOH/g 酸值	Specific Gravity g/cm ³ 比重	Iodine Value gi/100g 碘值	Ash Content 灰分
Test Method	ASTM E 28	ASTM D 1544	ASTM D 974	ASTM D 1475	ASTM D 1959	ASTM D 1063
C9 BP-90	90-100	4,5,6	Max. 0.1	1.07-1.13	Max.30	Max.0.05%
C9 BP-100	95-105	4,5,6	Max. 0.1	1.07-1.13	Max.30	Max.0.05%
C9 BP-120	115-125	4,5,6	Max. 0.1	1.07-1.13	Max.30	Max.0.05%
C9 BP-140	130-140	4,5,6	Max. 0.1	1.07-1.13	Max.30	Max.0.05%

C9 Aromatic Hydrocarbon Resin-Dark Color Series 碳九芳香烃石油树脂-深色系列

Item Unit 项目	Softening Point °C 软化点	Color Series Gardner 色号	Acid value mg KOH/g 酸值	Specific Gravity g/cm ³ 比重	Iodine Value gi/100g 碘值	Ash Content 灰分
Test Method	ASTM E 28	ASTM D 1544	ASTM D 974	ASTM D 1475	ASTM D 1959	ASTM D 1063
C9 BT-90T	90-100	10,11,12,14,18	Max. 0.3	1.07-1.13	Max.30	Max.0.05%
C9 BT-100T	95-105	10,11,12,14,18	Max. 0.3	1.07-1.13	Max.30	Max.0.05%
C9 BT-120T	110-120	10,11,12,14,18	Max. 0.3	1.07-1.13	Max.30	Max.0.05%

Compatibility / 相容性

MATERIAL	Resin Solubility(Solid 25wt%)		
	C5 Aliphatic resin	C9 Aromatic resin Low S.P. High S.P	
Natural Oils	C	C	C
Linseed Oil	C	C	C
Soybean Oil	C	C	C
Tall Oil	C	C	C
Cast Oil	I	I	I
Rosins			
Gum Rosin	C	C	C
Tall Rosin	C	C	C
Ester Gum	C	C	C
Polyterpene	C	C	C
Rubbers / Elastomers			
Natural Rubber	C	PC	I
Styrene Butadiene Rubber	I	C	C
Butyl Rubber	C	PC	I
SBS Block Copolymer	PC	C	PC
SIS Block Copolymer	C	C	PC
SEBS Block Copolymer	C	C	PC
Amorphous Poly Alpha Olefine (APAO)	C	I	I
Ethylene Vinyl Acetate	C	C	PC
Plasticizers			
Tricresyl Phosphate	C	C	C
Butyl Benzyl Phthalate	C	C	C
Diocetyl Phthalate	C	C	C
Dibutyl Phthalate	C	C	C
Resins / Polymers			
Acrylic Ester Resin	I	C	PC
Epoxy Resin	I	C	PC
Alkyd Resin	I	C	PC
Polyvinyl Chloride Resin	I	C	C
Polystyrene	PC	C	I
Phenolic Resin	PC	C	C
Waxes			
Paraffin Wax	C	C	C
Microcrystalline Wax	C	C	C
Carnauba Wax	C	C	C
Polyethylene Wax	C	C	C

PS:

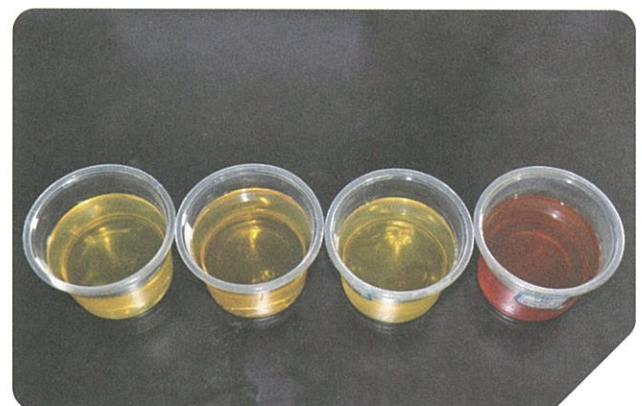
相容 C:Compatible 半相容 PC:Partially Compatible 不相容 I:Incompatible

Solvent Solubility / 溶解度

Solvent	Resin Solubility(solid 25wt%)	
	C5 Aliphatic resin	C9 Aromatic resin
Toluene	S	S
Ethyl Acetate	PS	S
Tetrahydrofuran	S	S
Benzene	S	S
Hexane	S	PS
Butyl Acetate	S	S
Methyl Isobutyl Ketone	I	S
Chlorobenzen	S	S
Acetone	I	S
Carbon Disulfide	S	S
1,4-Dioxan	I	S
Aniline	I	S
Carbon Tetrachloride	S	S
Isopropyl Alcohol	I	I
Chloroform	S	S
Methyl Ethyl Ketone	I	S
Butyl Alcohol	I	I
Furfuryl Alcohol	I	I
Methanol	I	I

PS:

溶解 S:Soluble 半溶解 PS:Partially Soluble 不溶解 I:Insoluble



Quality Control

Bitoner Resin insists that consistent quality, professional services are essential factors for long term business relationship. Thus we established strict and complete quality control system in the laboratory. Besides physical & chemical properties tests, Bitoner Resin also takes application tests, including paints, varnish, hot melt adhesives, tapes, etc.





产品质量控制

百色源树脂坚信产品质量和技术支持是服务客户的根本。多年来百色源树脂致力于产品质量控制体系的建立和完善。凭借现代化的实验室和专业的技术研究团队，我们在质量控制，技术研究尤其是应用测试方面已经处于国内领先水平，百色源树脂能够根据客户不同的用途需求供应质量稳定，可靠的产品。



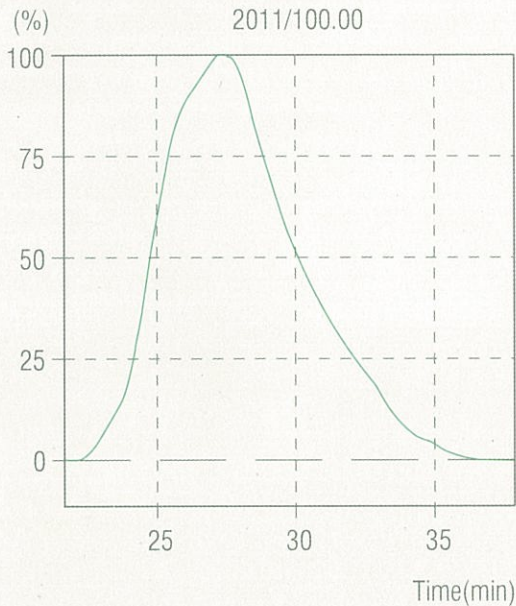
Molecular Weight and Polydispersity Width

GPC Overlay Report

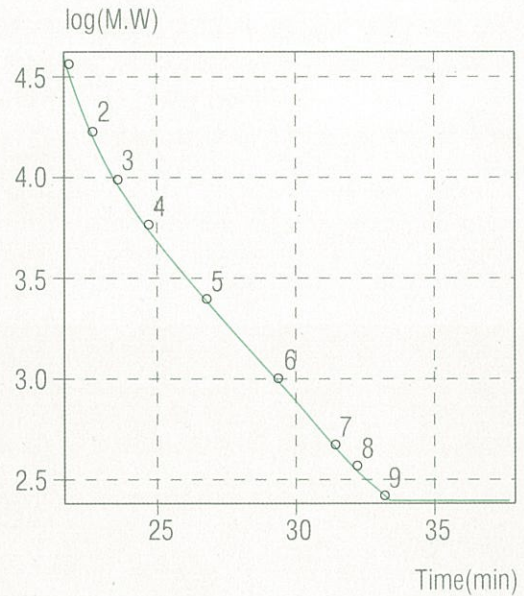
Title

Method File: 111102.GMT
 Data File: 20111101.D05
 Sample Name: C5 BT-1200

Chromatogram



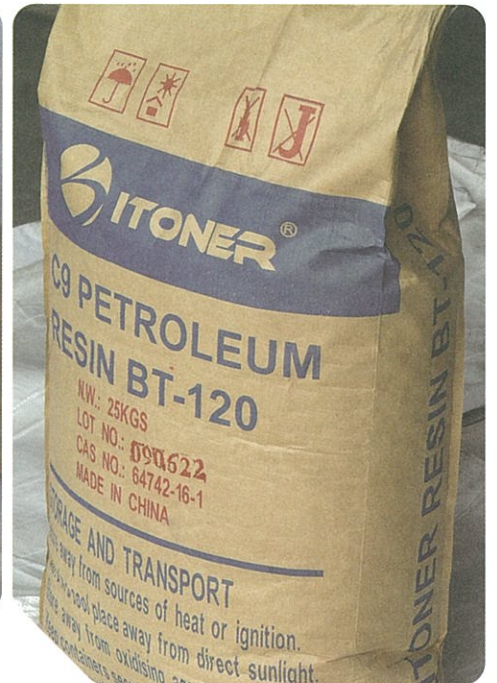
Calibration Curve



Ave. Molecular (RT/MW range)

(No.1)

Time (min) :	21.650-37.850
Molecular :	42,806-243
Area :	11980673.0 (100.00%)
Number-A.M.W. (Mn) :	1,083
Weight-A.M.W. (Mw) :	2326
Z-A.M.W. (Mz) :	4,166
Mw/Mn :	2.14766
Mz/Mw :	1.79067





Qingdao Free Trade Zone Bitoner Int`L Corp.

百色源树脂

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