英泰材料
INTECH MATERIALS

YUEYANG INTECH SYNTHETIC MATERIALS CO.,LTD.

COMPANY INTRODUCTION

Yueyang Intech is a professional manufacturer specialized in producing aldehyde resins, cyclohexanone-formaldehyde resins, other additives and resins. As a High-Technology Factory approved by Hunan province, many Chinese customers and lots of famous brands aboard are using our products. Focusing on R&D, testing the products with First-grade-equipment,conducting the administration carefully are guaranteeing the stable and high quality of our outcoming products.

Yueyang Intech synthetic materials co., ltd is located in a province-grade industrial park Hunan Green Chemical Industrial Park.It is adjacent to Yueyang Chemical Complex, connecting to No.107 National Highway in the east and Suiyue Expressway in its west and it is close to Changjiang River and Dong Ting Lake, which make the company have convenient transportation and beautiful national scenery.

With the service concept of win-win with excellent quality, serving with carefulness for management, R&D with preciseness. Yueyang Intech is providing excellent technology support, communicating ideas with expert customers,continuously improving ourselves, our company is willing to have nice, long-term cooperation with esteemed customers and to be of the best functional resins & additives supplier for painting/coating/inks/adhesives/pigment paste Industry.

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Aldehyde Resin

Aldehyde resin is a kind of aldehyde condensation resin, which is colorless or yellowish. It is soluble in almost paint solvents but not in water and compatible with practically all coating raw materials, it is excellently yellowing-resistant. It is usually as grinding resin in universal pigment and applied in coating formulation. It can effectively improve adhesion, hardness, gloss, solid content of paint and fullness of coatings. It is a kind of excellent multifunctional additive to coating/printing. There are INT-A81, INT-A81(non-benzene), INT-A81HW, INT A81UV according to different property and application.

Specification

Item \ Series	INT-A81	INT-A81 No benzene	INT-A81HW	INT-A81UV	Test Method
Appearance	Slightly yellow transparent solid, no significant mechanical impurities after dissolution				Naked eye
Color Gardner[1]	<1				ISO 4630-1
Softening point (°C)	90-105	90-105	90-105	90-105	ISO 4625
Acid value (mgKOH/g)	<3				ISO 2114
Hydroxyl value (mgKOH/g)	40-70	40-70	25-40	25-40	DIN 53240-2
Density(g/cm^3)	1.10±0.05				ISO 1183-1
Kinematic viscosity[2](mm^2/s)			>26		GB/T1660
Ford cup 4 viscosity[3](s)				adopt	
Content of benzene, toluene, xylene		No detection			SGS

1. The Solvent is ethanol;
2.50% resin solution of ethanol,solution temperature remains at 25℃ when viscosity is tested;
3.Resin solution in TPGDA and HEA, the solution contents account for 40% and 50%; solution temperature remains at 80℃ when testing. The solution shall remain no gel after 72 hours at 80℃.

Solubility

INT Aldehyde resin is soluble in almost common paint solvents such as aromatic hydrocarbons, alcohols, ketones, esters and so on but insoluble in water. Its solubility in nonpolar solvents such as mineral oil, aliphatic hydrocarbon, alicyclic hydrocarbon is limited,which should be paid attention.

Compatibility

INT Aldehyde resin is compatible with many coating raw materials including:

Alkyd resin	Phenolic resin	Vinyl chloride copolymer	Phthalate plasticizer
Cellulose nitrate	Urea-formaldehyde resin	Acrylic resin	Melamine-formaldehyde resin
Cellulose acetate-butyrate	Epoxy resin	Polyurethane	Polyamide resin
Petroleum resin	Rosin	Chlorinated rubber	

Application

- INT Aldehyde resin can be used in many formulations of coating/printing.
- It can improve gloss, hardness, adhesion, and yellowing resistance of coating/printing.
- It shows excellent wetting to filling and pigment, and is a kind of excellent grinding resin in universal pigment and can improve solid content when applied in coating.
- INT A-81(non-benzene) is unually used in formulation of environmental-friendly coating/printing because there are no organics such as benzene,toluene, xylene and ketones.

Package & Storage

- Package:25kg/bag
- Stored in dry and cool environment.
- Shelf life not less than 12 months and able to be used after validity period if key date still conform to requirements after being tested.

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Cyclohexanone-formaldehyde Resin

Cyclohexanone-formaldehyde resin is the condensation polymer from cyclohexanone and formaldehyde, which includes carbonyl and hydroxyl group, it can also be called ketone aldehyde resin. It shows excellent compatibility with almost coating/printing raw materials. It is soluble in almost organic solvents and exhibits good wetting and dispersion to the filling and pigment. It can also improve yellowing-resistant, adhesion, gloss and hardness of coating.It is a kind of excellent multifunctional additive of coating, which is usually as grinding resin in universal pigment and coating/printing. There are INT 90, INT 105, INT 120, INT 120L and INT 130 according to different property and application.

Specification

Item \ Series	INT 90	INT 105	INT 120	INT 120L	INT 130	Test Method
Appearance	Yellowish, transparent solid, no obvious mechanical impurity after dissolution					Naked eye
Softening point(℃)	85-95	95-105	105-125	115-125	125-135	ISO 4625-1
Color Gardner[1]	≤1					ISO 4630-1
Dissolve with ethanol	completely					Resin dissolve with ethanol by 50%
Acid value (mgKOH/g)	≤1					ISO 2114
Hydroxyl value (mgKOH/g)	70-110	70-110	70-110	>150	>100	DIN 53240-2
Density(g/cm^3)	1.15±0.05					ISO 1183-1

[1] The resin is 50% (mass fraction) solution in butyl acetate and ethanol, they account for 85% and 15% respectively.

Solubility

Cyclohexanone-formaldehyde resin is soluble in almost paint solvents such as aromatic hydrocarbons, alcohols, ketones, esters and so on, but insoluble in water. Its solubility in nonpolar solvents such as mineral oil, aliphatic hydrocarbon, alicyclic hydrocarbon is limited, which should be paid attention.

Application

Cyclohexanone-formaldehyde resin is characteristic of excellent compatibility, solubility and transparency, which enable it to improve gloss, adhesion, hardness, fullness and dryness when applied in formulation of coating/printing. It is a kind of excellent grinding resin in universal pigment and can improve solid content when applied in coating.

- INT 105 resin is used for formulation of coating/printing which requires high adehesion.
- INT 120 resin is used for formulation of univesal coating/printing.
- INT 120L resin is almost odorless, so it is used for formulation of coating/printing which requires inodorous.
- INT 130 resin is higher softening point resin, so it is used for formulation of coating/printing which requires hardness and dryness.

Package & Storage

- Package:25kg/bag
- Stored in dry and cool environment.
- Shelf life not less than 12 months and able to be used after validity period if key date still conform to requirements after being tested.

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Synthetic Resin INT 3120

INT 3120 synthetic resin is alicyclic linear thermoplasticity resin with nitrous in chemical structure. The products contain no benzene, toluene, xylene, ketone or other organics. It soluble in almost paint solvents and compatible with practically all coating raw materials. It exhibits excellent yellowing resistance, and can be used to improve hardness, gloss, adhesion of coating. It is a kind of multifunctional environmental-friendly coating/printing additive.

Specification

Property	Description & Data	Test Method
Appearance	Colorlessly crystal or slightly yellowish brittle solid resin	Naked eye
Softening point (°C)	105-115	ISO 4625-1
Color Gardner[1]	<2	ISO 4630-1
Acid value (mgKOH/g)	<3	ISO2114
Hydroxyl value (mgKOH/g)	55±15	DIN 53240-2
Density(g/cm^3)	1.10±0.05	ISO 1183-1
Content of benzene, toluene, dimethylbenzene(%)	Not detected	SGS

[1] The resin is 50% (mass fraction) solution in butyl acetate and ethanol, they account for 50% and 50% respectively.

Solubility

Soluble in all common paint solvents such as aromatic hydrocarbons, alcohols,ketones,esters but insoluble in water. Its solubility in nonpolar solvents such as mineral oil, aliphatic hydrocarbon, alicyclic hydrocarbon is limited.

Application

- Dissolved into solvents to prepare the 50% resin solution, and then added it into coatings/oil ink formulations appropriately. Recommended adding percentage is 5-30% of the formulation total mass.
- Applicalbe for environment-friendly coating/oil ink formulations for benzence, toluene and xylene free.
- Can be used to improve gloss, hardness, adhesion and yellowing of coating.
- Has good solvent release.
- Test must be done on basis of formulation before using.

Package & Storage

- Package:25kg/bag
- Stored in dry and cool environment.
- Shelf life not less than 12 months and able to be used after validity period if key date still conform to requirements after being tested.

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INT 301 Water-based Epoxy Resin

INT 301 is self-emulsifying epoxy emulsion with high solid content and stability. It can be mixed with other water-based polymers to achieve combined performance.
INT 301 can be used in water-based system, such as adhesives, industry coatings, and floor paints. Combined with INT 201 hardner is recommended.

Technical Specifications

Appearance	Emulsion	Visual
Epoxide Equivalent(g/eq)(gross)	170～220	ASTM D1652
Solid Content	60±2%	ISO 16482-1
Viscosity(25℃，mPa.s)	300-1500	ISO 3219
Density(mgKOH/g)	1.05-1.08	pycnometer method

Application

- Adhesives, coatings, insulation materials, composite materials, floor paint etc.
- Performance better with INT 201 water-based epoxy hardner.
- It can be cured by regular water-based epoxy curing agents, such as amine curing agents (including aromatic amine, fatty amine, dicyandiamide, polyamide, phenolic amine, etc.), anhydride curing agents, imidazoles and tertiary amine curing agents.
- When used with curing agent, the dosage of curing agent can be calculated according to the epoxy equivalent.

Performance Feature

- Self-emulsifying, high stability, no low molecular emulsifier
- Better acid and alkali resistance, water resistance and durability after curing.
- Eco-friendly and healthy, convenient application.
- Stable heat release while curing, suitable with various curing agents.
- High hardness and gloss, good light and color retention, excellent heat resistance, water resistance and weather resistance after curing.

Package and Storage

25KG/drum，200KG/drum，1000KG/drum Non Dangerous Goods
Stored in dry and cool place. Shelf life not less than 12 months and able to be used after validity period while key standards is at required level.

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INT 201 Water-based Epoxy Hardener

INT 201 is modified organic amines curing agent for epoxy resin at room temperature. Highcompatibility with epoxy resin. Easy operation, high hardness and gloss,excellent water resistance after curing. Can be used in the bottom, middle and surface layers in floor paints, but also for high strength grouting materials, wear-resistant concrete ingredients and epoxy modified cement.

Technical Specifications

Appearance	Yellowish Transparent Liquid	Visual
Color(Gardner No.)	≤9	ISO 4630-1
Solid Content	60±2%	ISO 16482-1
Viscosity(25℃, mPa.s)	600-1500	ISO 3219
Amine Value(mgKOH/g)	160-230	HCl-Ethanol

Application

- Curing agent for solvent-based or water-based epoxy resins, can be applied in solvent or water based adhesives, coatings, especially recommended for water-based floor paints.
- Adapted to humid environment, such as basement, workshop, underground garage
- For curing liquid epoxy resin(such as E-51), INT 201 can be mixed and stirred well with epoxy resin, and with additional proper amount of water (the amount of water shall be determined by the viscosity acquired at the time of application) . No need to add water when applied in water-based epoxy resin system.
- The weight ratio of INT 201:E51= 1-2：1. For INT 301 water-based epoxy resin, the weight ratio is 1:1.For other applications, this amount can be used or calculated according to the ratio of epoxy value to amine value.

Performance Feature

- Water-based system, environmental friendly, scrub-resistance, acid-alkali resistance, mildew resistance and anti-bacteria.
- Room temperature curing agent. Surface dry in 2 hours, 24 hours can be fully cured, the highest hardness can be achieved in 72h(20°C).
- No additional emulsifier is required to emulsify the epoxy resin.
- Steady curing speed and fast hardness improvement.
- High hardness, high gloss, and good scratch resistance after curing
- The solidified material has micro-breathable structure, resistance to underground water vapor, easy construction, seamless dustproof.

Package and Storage

25KG/drum，200KG/drum，1000KG/drum Non Dangerous Goods

Stored in dry and cool place. Shelf life not less than 12 months and able to be used after validity period while key standards is at required level.

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INT 2D Hydroxy-arcylic Macromonomer

INT 2D is a special kind of functional hydroxyl acrylic macromonomer, which can improve abrasion resistance, elasticity, low temperature flexibility, adhesion of the paint film when used in the synthesis of polyacrylate, UV coatings, PU coatings. It is a coating modifier with excellent performance.

Technical Specifications

Appearance	Yellowish Transparent Liquid	Visual
Gardner Color	<1	ISO 4630
Melting Point°C	□12	ISO 6353
Viscosity(25℃，mPa.s)	60-100	ISO 3219
Acid Value(mgKOH/g)	≤6	ISO 2114
Hydroxy Value(mgKOH/g)	160	DIN 53240-2

Application

- In the synthesis of polyacrylate resins, as a functional monomer, can improve water resistance, increase the flexibility at low temperature, improve the hardness, adhesion and gloss.
- Apply in the UV curing coating as a UV monomer, to improve the elasticity, flexibility, scratch resistance and adhesion.
- Used in polyurethane as a component of polyols, it can improve the chemical resistance of polyurethane and increase gloss and hardness.

Performance Feature

- Multifunctional macromonomer , improve the performance of polyacrylate resins, UV and PU coatings.
- It has high activity double bond and can copolymerize with alkene monomer.
- Higher hydroxyl value as functional groups can improve the performance of coatings.
- Low acid value, light color, can be used in a variety of coatings, a wide range of applications.
- Can improve the abrasion resistance of coating, so that the coating has high elasticity and high hardness, wear resistance, low temperature flexibility, adhesion.

Package and Storage

25KG/drum，200KG/drum，1000KG/drum Non Dangerous Goods

Stored in dry and cool place. Shelf life not less than 12 months and able to be used after validity period while key standards is at required level.

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高新技术企业

证书

企业名称：岳阳市英泰合成材料有限公司　　证书编号：GR201543000334

发证时间：2015 年 10 月 28 日　　有 效 期：三年

批准机关：

EWC

Certificate of Approval

Certificate No.: 07681EQN

Certified that

Yueyang Intech Synthetic Materials Co., Ltd

Has established a Quality Management System which is in Accordance with the Requirements of the Standard

GB/T 19001-2008/ISO 9001:2008

SCOPE OF CERTIFICATION

Production and Sale of

Cyclohexanone-Formaldehyde Resin, Aldehyde Resin

EWC

Certificate of Environment Management System

Certificate No.: 07681EN

Certified that

Yueyang Intech Synthetic Materials Co., Ltd

Has established a Environment Management System which is in Accordance with the Requirements of the Standard

ISO 14001:2004

GB/T 24001-2004

SCOPE OF CERTIFICATION

The Environmental Management Activities Related to

Production and Sale of

Cyclohexanone-Formaldehyde Resin, Aldehyde Resin

发明专利证书

REACH24H

CONFIRMATION LETTER OF REACH (LATE) PRE-REGISTRATION


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YUEYANG INTECH SYNTHETIC MATERIALS CO.,LTD.


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