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Aal Chem Vinyl Resins

Vinyl resins have many applications: reflective materials, wood coatings, inks, marine paints, car refinishes, adhesives, floor paints, can coatings, heat transfer adhesives, magnetic cards, and VC heat sealing for medical packaging.

Vinyl Chloride and Vinyl Acetate Copolymers

Code	Application
LC-10	With highest molecular weight, LC-10 is used where the ultimate toughness, durability, and chemical resistance are required. Because of its excellent tensile and tear properties, LC-10 is ideally suitable for strippable coatings, vinylic substrate inks and varnish, metal, can coatings, anti-overflowing of plasticizer film on PU, modules carpet, magnetic card, cable, flooring, etc.
LC-13-1	With medium molecular weight, LC-13-1 is ideally suitable for marine and maintenance coatings, metal, can coatings, strippable coatings, PVC and paper ink, PVC toy paint, magnetic card, rubber or plastic foam materials, cable, PU color plasm and flake, PU surface treatment, flooring, ciphertext disc, etc.
LC-13-2	With low molecular weight, LC-13-2 is ideally suitable for marine and maintenance coatings, metal, can coatings, strippable coatings, PVC and paper ink, toy paint with low VOC content, magnetic card, rubber or plastic foam materials, cable, PU color plasm and flake, PU surface treatment, flooring, ciphertext disc, etc.
LC-40	With high molecular weight and low melt index, LC-40 is used primarily for and maintenance coatings, plastic coatings, heat-transfer paint, carbon ribbon, outdoor inkjet ink, adhesive for magnetic card and integrative machine cardboard. When mixed with carboxyl vinyl resin [50:50] in the sealing of Al-Al foil and Al-PVC foil, LC-40 can effectively reduce the heat sealing temperature and raise the heat sealing strength.

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Carboxyl-Modified Vinyl Chloride/Vinyl Acetate Terpolymers

Code	Application
VAM	With high molecular weight, VAM is used for maintenance, marine, cans sealed coatings, aluminum foil varnish, aluminum plated films varnish for tobacco packaging, roll material paint, floor paint, shoe adhesive (EVA-oxford cloth adhesive), silk screen printing and transfer ink, VC heat sealing adhesive for medical packaging, Al-Al foil composite heat sealing adhesive, electro-chemical aluminum paint, thermal transfer adhesive, etc.
VAMA	With high molecular weight, VAMA is used primarily for air-dry finishes, such as maintenance, marine and metal coatings, cans sealed coatings, aluminum foil varnish, adhesive for staple, shoe adhesive, floor paint, cement paint, silk screen printing and transfer ink. VAMA often mixes with LC-40, used in production of heat sealing packaging coatings, can effectively reduce the heat sealing temperature, raise the heat sealing strength in Al-Al foil for Al-PVC foil. It can also be used to produce VC heat sealing adhesive for medical packaging, electro-chemical aluminum paint, thermal transfer adhesive, etc.
VMA	With low molecular weight, VMA is used for high solid-content inks, paints and adhesives. It yields a good balance of solubility and viscosity properties needed for high-build, air-dry maintenance finishes. Such as maintenance, marine, and metal coatings, interbedded adhesive, aluminum foil varnish, thermal transfer adhesive, shoe adhesive, UV surface treatment, UV primer, ink-jet and metal inks, etc.
VMC	With medium molecular weight, VMC is used for high solid-content inks, paints, adhesives, such as maintenance, marine, metal, can coatings, air-dry finishes, interbedded adhesive, aluminum foil varnish, thermal transfer adhesive, shoe adhesive (PU treatment, EVA adhesive), UV surface treatment, UV primer, metal inks, etc.
HVAMA	HVAMA is used for air-dry finishes, such as maintenance, marine and metal coating, cans sealed coating, wood and glass coating, metal inks, adhesive for staple, etc.

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Hydroxyl-Modified Vinyl Chloride/Vinyl Acetate Terpolymers

Code	Application
VAH	With high molecular weight, VAH is used for marine anti-corrosive paint, gravure ink, chassis paints, maintenance, cans sealed coating, PU and wood finishes, paper coatings, interbedded adhesive, PET steam resistant inks, adhesive for magnetic tape and carbon ribbon. VAH has high properties in adhesion, pigment dispersion, wettability, color development ability and it also participates in the cross linking reaction.
VAD	With medium molecular weight, VAD is used for relatively high solid-content marine anti-corrosive paint, gravure ink, chassis paints, industrial maintenance, cans sealed coating, PU and wood finishes, paper coatings, interbedded adhesive, PET steam resistant inks, magnetic tape and carbon ribbon adhesives. VAD has high properties in adhesion, pigment dispersion, wettability, color development ability and it also participates in the cross linking reaction.
VAF	With high molecular weight, VAF is used for inks and coatings, including maintenance and marine finishes, paper coatings, metal finishes, PET inks, wood, plastic coatings, and adhesive for magnetic tape and carbon ribbon.
VAF-P	With medium molecular weight, VAF-P is used for relatively high solid-content inks and coatings, including industrial maintenance, marine and metal finishes, paper coatings, PET inks, wood and plastic finishes, adhesive for magnetic tape and carbon ribbon.
VOH	With low molecular weight, VOH is used for high solid-content inks and coatings, including industrial maintenance, marine and metal finishes, marine anti-corrosive paint, can coating, wood and plastic finishes, paper and PU coatings, PET inks, adhesive for magnetic tape and carbon ribbon.

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Group		Copolymer				Carboxyl-Modified					Hydroxyl-Modified				
Grade		LC-10 (VYNS-3)	LC-13-1 (VYHH)	LC-13-2 (VYHD)	LC-40 (H40/50)	VAM (VMCH)	VAMA (VMCH)	VMC (VMCC)	VMA (VMCA)	HVAMA	VAH (VAGH)	VAD (VAGD)	VAF (VAGF)	VAF-P (VAGC)	VOH (VROH)
Polymer Composition % by Wt	VCl	90	86	86	60	86	86	83	81	84	90	90	81	81	81
	VAc	10	14	14	40	13	13	16	17	13	4	4	4	4	4
	Other					1[a]	1[b]	1[b]	2[b]	3[b]	6[c]	6[c]	15[d]	15[d]	15[d]
Viscosity No.		66-70	56-60	44-48	54-58	50-54	50-54	44-48	40-44	66-70	54-58	44-48	56-60	48-52	32-36
K value		58-60	48-50	38-40	48-50	44-46	44-46	38-40	32-34	58-60	46-48	36-38	48-50	40-42	30-32
Average molecular Weight		44000	27000	22000	55000	27000	27000	19000	15000	34000	27000	22000	33000	24000	15000

Remarks: a:Maleic anhydride, b: Maleic acid, c: Vinyl alcohol, d: Hydroxyalkyl acrylate

Characteristics: Appearance: White powder Apparent density:≥0.5g/ml Volatile:≤1%
Recommended solvent: 50/50 MEK/Toluene(LC-40 can be dissolved in ester solvent)

* **The physical property data listed here are considered to be typical properties, not specifications.**

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