

XOANONS® Anti-graffiti and easy-cleanability additive

Model number

XOANONS®WE-D9723R

Specification

Composition	Silicon modified hydroxyl acrylic resin solution
Appearance	slight yellowish translucent liquid
Solvent	Isopropanol/ diethylene glycol butyl ether/ water
Content	50±3% (125°C12h)
Density	1.02-1.046/ml(25±1)°C
Viscosity	1000-5000mPa·s (Rotating viscometer)(25±0.2)°C
Hydroxyl value	84±5 mg KOH/g (Theoretical value of solid resin)

Note: This data sheet is intended to give typical results, not standard. Subject to COA.

Application system

Water-soluble system

Properties

- Excellent compatibility.
- Increase slip; Improve hydrophobicity and oil repellency.
- Excellent anti-wiping performance for marking pen
- With lotus leaf effect
- Excellent solvent resistance.

Incorporation

It can be added at any stage of the production process, including post addition.

Suggest addition

Addition to varnish	1-10%
Addition to color paint	4-8%

Storage stability

Keep intact 24 months in original package. Products beyond the storage period may continue to be used after inspection. The container must be closed immediately after use.

package

25KG / 180KG

Attachment: XOANONS® WE-D9723R Application Performance Testing

1. Application experiment formula:

1.1 Acrylic amino system varnish

Raw material	proportion%	remarks
AC1000	60	XOANONS® Water-soluble acrylic resin
Ethylene glycol butyl ether	5	solvent
Water	22.5	solvent
325	12	amino resin
BD7744	0.5	acid catalyst
Total	100	

Explanation: AC1000 resin is produced by our company and its pH has been adjusted to >7. Therefore, there is no need to add additional amine to adjust the pH under normal circumstances. If the storage time is long, an appropriate amount of amine regulator can also be added.

Glossy white paint

Raw material	proportion%	remarks
AC1000	30	XOANONS® Water-soluble acrylic resin
Ethylene glycol butyl ether	2.5	solvent
Water	6.9	solvent
Titanium dioxide powder	30	BLR-699
WE-D2792	0.6	XOANONS® dispersing agent
Disperse the above to a fineness of <math><10 \mu\text{m}</math>. Add the following materials		
AC1000	10	XOANONS® Water-soluble acrylic resin
325	8	amino resin
BD7744	0.5	acid catalyst
Water	11.5	solvent
Total	100	

Matte white paint

Raw material	proportion%	remarks
Glossy white paint	96	
YB0113	4	Matte powder
Total	100	

1.2 Saturated polyester amino system

Varnish

Raw material	proportion%	remarks
YG-SP881	60	Water-soluble saturated polyester resin
Ethylene glycol butyl ether	5	solvent
Water	11.5	solvent
5603	20	amino resin
BD7744	0.5	acid catalyst
Amine	Moderate, adjust to pH>7	PH regulator

This information is given to the best of our knowledge. Because of the multitude of formulations, production, and application conditions, all the above mentioned statements have to be adjusted to the circumstances of the processor.

Total	100	
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Glossy white paint

Raw material	proportion%	remarks
YG-SP881	40	Water-soluble saturated polyester resin
Ethylene glycol butyl ether	2.5	solvent
Water	6.9	solvent
Titanium dioxide powder	30	BLR-699
WE-D2792	0.6	XOANONS® dispersing agent
Amine	Moderate, adjust to pH>7	PH regulator
Disperse the above to a fineness of<10 μ m. Add the following materials		
5603	13.3	amino resin
BD7744	0.5	acid catalyst
Water	6.2	solvent
Total	100	

Matte white paint

Raw material	proportion%	remarks
Glossy white paint	96	
YB0113	4	Matte powder
Total	100	

2. Experimental steps:

2.1 Prepare water-soluble polyester amino and acrylic amino varnish, glossy white paint, and matte white paint according to the above formula.

2.2 Add 5% WE-D9723R to each coating and mix evenly.

2.3 Coated on aluminum plate, polyester amino system baked at 230 °C for 1 minute, acrylic amino system baked at 150 °C for 30 minutes, dry film thickness 10-15 μm.

2.4 Test the performance and gloss of the oil resistance pen, and observe compatibility in the varnish.

2. Experiment result:

	Coating system	ΔE	Number of times to repeatedly write and wipe	Gloss(60°)	compatibility
Polyester amino	varnish	1.22	8	149.2	4
	Glossy white paint	1.64	---	66.1	---
	Matte white paint	3.69	---	18.2	---
Acrylic amino	varnish	0.68	7	158	5
	Glossy white paint	3.47	---	54.3	---
	Matte white paint	6.23	---	2.5	---

Explanation:

Oil pen model: Deli 6824

ΔE : The oily pen evaporates until dry, and the color difference between the wiped area and the unwritten area after dry wiping, the larger the value, the more obvious the residual traces.

Repeated wiping times: In the same area, immediately dry wipe with an oily pen. Record the number of times when the paint film is damaged or cannot be wiped clean.