

# XOANONS® Dispersing agent

## Model number

XOANONS®WE-D220R

## Specification

Composition	Low molecular weight polymer containing pigment affinity groups Ester solution
Appearance	Red brown transparent liquid
Solvent	Di-basic ester
Active substance	50%
Density	1.04-1.08g/ml(25 ± 1)°C
Viscosity	10-80s(Tu-4 viscometer)(25 ± 0.2)°C
Flash point	≥ 100°C

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

## Application system

Solvent-based

## Properties

- Excellent dispersing efficiency and viscosity reduction effect.
- High gloss. Increase color intensity.
- Increase transparency and shading.
- It is very suitable for the preparation of organic bentonite slurry.
- Especially recommended for coil coating systems, with excellent anti-floating effect.

## Incorporation

Should be incorporated to the mill base before pigments adding.

## Suggest addition

Inorganic pigment	1-2%
Organic pigment	1-5%
TiO <sub>2</sub>	0.5-1%
Bentonite	30-50%

## Storage stability

Stir well before use. Stratification or turbidity may occur at low temperature. Heated to 30-60°C and fully mixed without side effect to use. 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

### XOANONS® WE-D220R applied to the performance of coil coating (co grinding)

■ Grey paint formula


material	proportion	remarks
YP-3822	33.0	polyester resin
mixed solvent	10.0	Xylene/PMAC= 1/ 1
BNGEL 828	0.2	organic bentonite
Dispersing agent for filler	0.6	see experimental results section
Dispersing agent for carbon black	0.3	see experimental results section
ATR-312	20.0	titanium dioxide powder
Barium sulfate	10.0	filler
MA- 100	0.3	carbon black
Grind to a fineness of less than 20 microns and add the following components		
YP-3822	12	polyester resin
YP-5603	9.5	methyletherized amino resin
KC	0.5	acid catalyst
NBA	3.5	N-butanol
WE-D 8776CR	0.2	Fluorine modified acrylate leveling agent (XOANONS)


■ Sea blue paint formula:

material	proportion	remarks
YP-3822	33.0	polyester resin
mixed solvent	12.3	Xylene/PMAC= 1/ 1
BNGEL 828	0.2	organic bentonite
Dispersing agent for filler	0.5	see experimental results section
Dispersing agent for organic pigment	1.2	see experimental results section
ATR-312	15.0	titanium dioxide powder
Barium sulfate	10.0	filler
Phthalocyanine blue	3.0	Phthalocyanine blue 15: 3
Grind to a fineness of less than 20 microns and add the following components		
YP-3822	12	polyester resin
YP-5603	9.5	methyletherized amino resin
KC	0.5	acid catalyst

NBA	3.5	N-butanol
WE-D 8776CR	0.2	Fluorine modified acrylate leveling agent (XOANONS)

■ Application experiment results:

Grey paint test results						
Dispersing agent for carbon black		WE-D 262R				
Dispersing agent for titanium dioxide powder and filler		WE-D220R	Comparison sample 1	Comparison sample 2	Comparison sample 3	Comparison sample 4
Fineness, microns		10	10	10	10	10
Reducing viscosity		excellent	excellent	excellent	common	excellent
Color spreading property	L	54.44	56.19	54.77	57.12	56.58
	a	-1.3	-1.41	-1.31	-1.38	-1.36
	b	-4.58	-5.21	-4.69	-4.9	-5.06
60°gloss		67.7	68.9	71.6	74.5	62.3
Anti floating color difference measured by grinding method)	ΔL	0.38	1.6	0.69	1.44	1.79
	Δa	-0.06	-0.08	-0.05	-0.06	-0.07
	Δb	-0.12	-32	0.01	-0.19	-0.44
	ΔE	0.4	1.63	0.69	1.45	1.84
Attached Figures						
Fineness after 7 days of heat storage at 50 °C		Not returning to coarse	Not returning to coarse	Not returning to coarse	Not returning to coarse	Not returning to coarse

Opening effect after 7 days of hot storage at 50 °C		better	poor	better	poor	poor
Sea Blue Paint Test Results						
Dispersing agent for carbon black		WE-D 262R				
Dispersing agent for titanium dioxide powder and filler		WE-D 220R	Comparison sample 1	Comparison sample 2	Comparison sample 3	Comparison sample 4
Fineness, microns		10	10	10	10	10
Reducing viscosity		excellent	excellent	excellent	excellent	excellent
Color spreading property	L	51.04	51.11	51.06	51.07	51.55
	a	-16.24	-16.02	-15.99	-16.18	-16.08
	b	-34.36	-34.48	-34.37	-34.73	-34.7
60°gloss		47.9	55	55.4	53.9	66.5
Anti floating color (color difference measured by grinding method)	ΔL	0.15	0.1	0.03	-0.14	0.13
	Δa	0.55	0.42	0.63	0.38	0.61
	Δb	0.26	0.26	0.44	0.38	0.83
	ΔE	0.62	0.5	0.76	0.55	1.03
Attached Figures						
Fineness after 7 days of heat storage at 50 °C		Not returning to coarse	Not returning to coarse	Not returning to coarse	Not returning to coarse	Not returning to coarse
Opening effect after 7 days of hot storage at 50 °C		better	good	better	poor	poor

■ Application Experiment Conclusion:

Using WE-D220R as a wetting and dispersing agent for titanium dioxide and fillers, combined with

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.



WE-D262R as a wetting and dispersing agent for carbon black and organic pigments, it has excellent wetting, viscosity reduction, color development, and storage stability in the gray and sea blue paint (co grinding) systems of coil coatings. Especially for the anti floating color of gray paint, the control is very good. WE-D220R recommends adding 2% to the titanium dioxide and filler content, WE-D262R recommends adding 100% to the carbon black, 40% to phthalocyanine blue.