

Experimental project	Research the performance of different Dispersant in the emulsion paint					
Place	Aorun Laboratory	Time	2012.12.2-2012.12.21			
Laboratory technician	Solomon Zhang	Temperature	3-15			
Details	Test 1 Experimental material					
		Raw material	Company	Code		
		SN-5040	San-Nopco	A		
		SN-5040	Zhongya	B		
		P-19	Changfeng	C		
		5040B	Sushouyi	D		
	Test 2 Generic performance					
		Raw material	Appearance	Smell	Water-solubility	Anti-foamability
		San-NOPCO SN-5040	Better	Like the almond	Good	Good
		Zhongya SN-5040	Best	Like the almond	Good	Good
		P-19	Yellowish	Like the almond	Good	Good
		5040B	Better	Different	Good	Good
	Comment: some customs attention the smell, if the smell changed, they will doubt the quality of the product.					
	Test 3 Formulation					
		Water	330			
	Dispersant	A/B/C/D				
	PE-100	1.5				
	30000YP2	3				
	F-111	2				
	EG	8				
	DWB-95	1.5				
	M/X600	0.5				
	calcium carbonate	330				
	Ck-95	88				
	titanium dioxide	25				
	Light calcium carbonate	57				
	Emulsion	90				
	Texanol	7				

F-111	1.5
TT-935	5
90/X	1.5
Water	43
	1000

- 1、 Comparing the different dispersant dispersion efficiency
- 2、 Comparing the different dispersant storage stability

Test 4 dispersion efficiency

	Viscosity (Rotational viscometer sp. #4 6rpm, 20°C)
A	40000cps → 4300cps
B	40000cps → 4500cps
C	40000cps → 4600cps
D	40000cps → 4800cps

A > B > C > D

Test 5 storage stability

Viscosity (Stormer Viscometer /KU/20°C)	12.2	12.3	12.7	12.10	12.14	12.17	12.21
A	103	104	104	105	106	107	109
B	100	102	103	103	104	106	106
C	100	102	102	105	105	106	107
D	99	103	105	105	107	107	108

A > B > C > D

Conclusion	SN-5040 (San-nopco) is the best except the appearance。		
Support	1、 Improve the smell 2、 Improve the appearance 3、 Improve the dispersion efficiency 4、 Improve the storage stability in the emulsion paint	Day	2012-12-21