

Test result of Calcite (CaCO₃ CA-400, CA-800)

2006.8.7

1. Sample

Control(Korean products) / CA-400, CA-800, CA-1250 / Taiwan products

2. Purpose of test

As filler properties in Wall paper

3. Test Method

Chemical, Physical properties : Wall paper standard test method.

Whiteness :Minolta CM508i,

Oil absorption : mixing with DOP

Particles size difference : Mastersizer X.

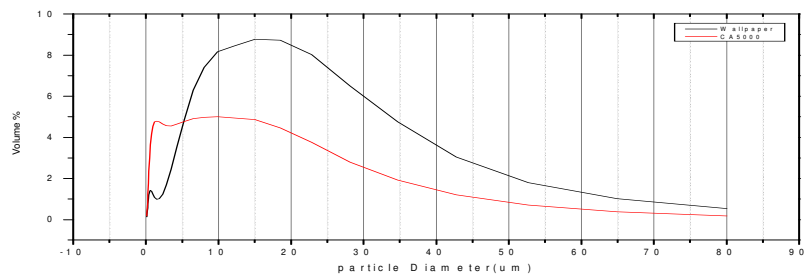
Particle shape : SEM (Electro microscope)

4. Test Result

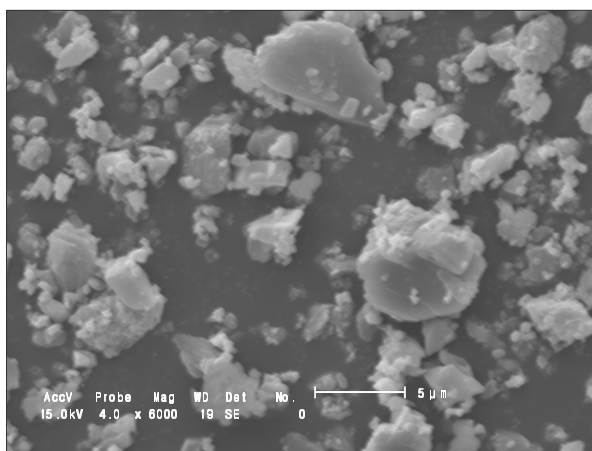
1) Chemical / Physical properties

Items	Unit	Test result				
		control	CA1250	CA-800	CA400	Taiwan
Whiteness	L	97.46	98.88	98.84	98.71	97.95
	a	-0.01	-0.10	-0.04	-0.03	-0.07
	b	-0.13	0.73	0.76	0.87	0.35
Particle	d(0.5)	5.97	3.32	5.90	10.32	3.41
	D(4,3)	9.63	3.89	9.99	13.60	7.34
	d(0.9)	15.50	7.65	14.32	29.41	19.42
Oil Absorption	mL/100g	37.3	30.0	30	26.7	27.6
Color change After oil absorption	L	90.54	94.41	94.41	94.27	89.65
	a	-0.42	-0.44	-0.40	-0.20	-0.41
	b	0.43	5.47	0.41	4.57	2.67

2) Particle size analysis

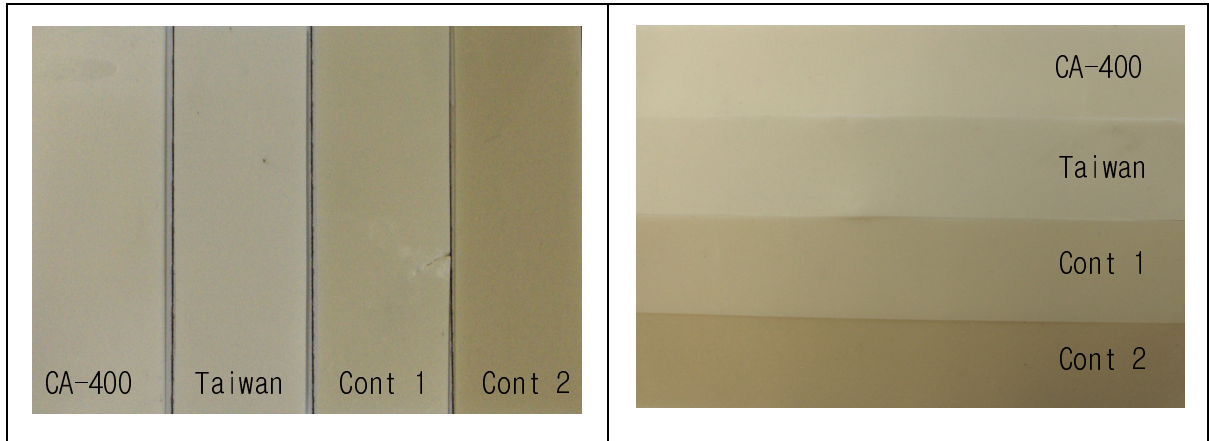


3) particle shape (SEM)



4) Sample apply test in wall paper

Sample Name	Result		
	L	a	b
CA-400	88.80	-0.95	4.65
Taiwan	86.70	-1.00	5.82
Control1	81.52	-0.93	9.85
Control2	77.51	0.89	13.37



5. Conclusion

TMC CA-400 and CA-800 have a good properties in general test of wall paper making process. we could easy control color harmonization and color formation because the Whiteness is better than other filler(Korean product and Taiwan product), we concluded to reduce using not only white supplements but also Plsticiser(DOP).

Calcite	0.1kg	1kg	1000kg	100,000kg
DOP reduced	0.9g	9g	9kg	900kg