


PRODUCT DESCRIPTION	
Chemical Characterization	Cobalt Titanate Green Spinel
Color Index	Pigment Green 50
C.I. No.	77377
CAS No.	68186-85-6
Relative Hiding Power [%]	~ 245

PHYSICAL DATA		
Appearance	Green Powder	
Density [g/cm <sup>3</sup> ]	4.9	acc. to DIN EN ISO 787/10
Bulk Density [g/cm <sup>3</sup> ]	0.9	acc. to DIN EN ISO 787/11
Tamped Density [g/cm <sup>3</sup> ]	1.5	acc. to DIN EN ISO 787/11
Oil Absorption [ml/100g]	17	acc. to DIN EN ISO 787/5
Water Soluble Salts [%]	< 0.5	acc. to DIN EN ISO 787/3
Moisture [%]	< 0.5	acc. to DIN EN ISO 787/2
pH	7.5 - 9	acc. to DIN EN ISO 787/9
Sieve Residue on 45 µm [%]	< 0.1	acc. to DIN 53195
Av. Primary Particle Size [µm]	0.4 - 0.5	acc. to ISO 13320-1
Total Solar Reflectance [%] <sup>5)</sup>	33	DIN EN ISO 410

CHEMICAL INVENTORY LISTING STATUS	
All ingredients are listed in the following national chemical inventories:	
AICS (Australia), DSL (Canada), ECL (Korea), EINECS [Europe], IECSC [China], MITI [Japan], NZIOOC (New Zealand), PICCS (Philippines), TSCA [USA]	

FULL TONE	REDUCTION
	

FASTNESS PROPERTIES		
Heat Resistance [°C]	800	AA10/CIC/104
Solvent Resistance <sup>1)</sup>	5	
Acid Resistance <sup>2)</sup>	5	
Alkali Resistance <sup>2)</sup>	5	
Light Fastness [Full Shade] <sup>3)</sup>	8	
Weather Fastness [Full Shade] <sup>4)</sup>	5	

REGULATIONS	
Germany BfR recom. IX	compliant
APME AP 89/1	compliant
USA (FDA) 21 CFR § 178.3297	on request
Toys Europe EN 71-3	compliant
Toys USA ASTM F 963-03	compliant
CONEG, EC 94/62	compliant
ROHS, 2002/95/EC, 2005/618/EC	compliant
End of Life Vehicles, 2000/53/EC, 2002/525/EC	compliant

STANDARD PACKAGING
- 25 kg Paper Bags
- Different types of packaging are available on request

1) Pigments were dipped into solvent. Assessment with Grey Scale according to DIN 54002. Rating: 1=severe, 5=none.

2) Pigments were dipped into hydrochloric acid (10%) or sodium hydroxide solution (10%). Rating: 1=poor, 5=excellent.

3) Light fastness was tested in an alkyd/melamine system. Assessment with Blue Wool Scale according to DIN 54003. Rating: 1=very poor, 8=outstanding.

4) Weathering fastness was tested in an waterborne acrylic resin system. Assessment with Grey Scale according to DIN 54001 after 2000h accelerated weathering (Arc Xenontest acc. to DIN EN ISO 11341-1-A, 1998). Rating: 1=poor, 5=very good.

5) Powder pellet

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