



VINAVIL 4830

ACRYLIC DISPERSION FOR
WATER BASED ENAMEL



Vinavil 4830

Vinavil 4830 is a pure acrylic water based dispersion self cross-linking, suitable to formulate high gloss enamels with low solvent content and excellent performances.

Vinavil 4830 is APEO free and formaldehyde free.

Vinavil 4830 is polymerized with a particular technology that improves the performances in comparison with the standard acrylic polymers.



Vinavil 4830

CHARACTERISTICS:

SOLID CONTENT	%	46 ± 1
BROOKFIELD VISCOSITY	mPa*s (RVT 20 rpm, spindle 1)	< 1000
pH	1-14	9.0 ± 0.5
MFFT	°C	< 10
PARTICLE SIZE DISTRIBUTION	µm	0.06 - 0.11
VOC CONTENT	%	< 0.2
DENSITY AT 23 °C	Kg/dm ³	1.06
Tg	°C	≅ 26



Vinavil 4830: WATER BASED ENAMEL

INGREDIENTS	% W/W	FUNCTION	SUPPLIERS
WATER	7.55		
TEGO AIREX 902W	0.30	DEFOAMER	EVONIK
PROPYLENE GLYCOL	3.00		
COATEX BR3	0.40	DISPERSANT	COATEX
AMP 95	0.20	NEUTRALIZING AGENT	
TiO ₂ type RD3	22.00	PIGMENT	KEMIRA
Vinavil 4830	60.00	BINDER	VINAVIL
TEXANOL	2.50	COALESCENT	EASTMAN
TEGO FOAMEX 1488	0.30	DEFOAMER	EVONIK
SER AD FA 179	0.60	CORROSION INHIBITOR	ELEMENTIS
ACTICIDE MBS	0.20	BIOCIDE	THOR
ME 39235.E	1.20	WAX	MICHELMAN
BYK 348	0.40	SUBSTRATE WETTTING	BYK
TAFIGEL PUR 80	1.20	PU- THICKENER	MUNZING CHEMIE
AMP 95	0.15	NEUTRALIZING AGENT	
TOTAL	100.00		

OPERATING PREPARATION FOLLOW THE FORMULA AS WROTE



Vinavil 4830:

WATER BASED ENAMEL CHARACTERISTICS

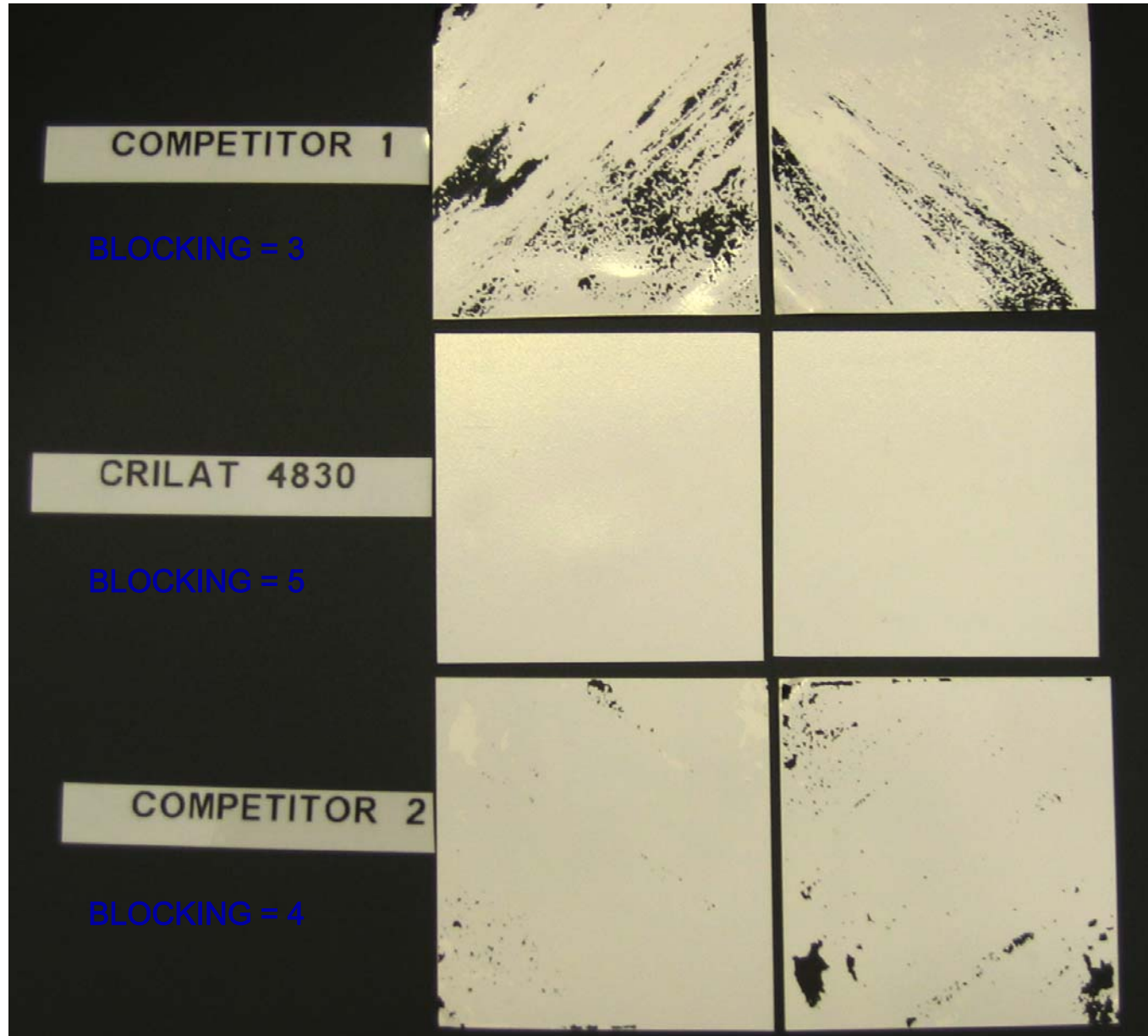
DENSITY	Kg/l	1.21
BROOKFIELD VISCOSITY	mPa*s (RVT at 23°C, 20 rpm)	4500 ± 1000
pH	1-14	8.5 ± 0.5
VOC content in according with 2004/42/ CE	g/l	69 with Texanol 39 without Texanol
GLOSS at 60°	After 24 h	78
GLOSS at 20°		53
BLOCKING RESISTANCE (*)	1-5	5

(*) 1 = WORST RESULT; 5 = BEST RESULT



vinavil/Crilat 4830: WATER BASED ENAMEL

VINAVIL METHOD MV AT 051





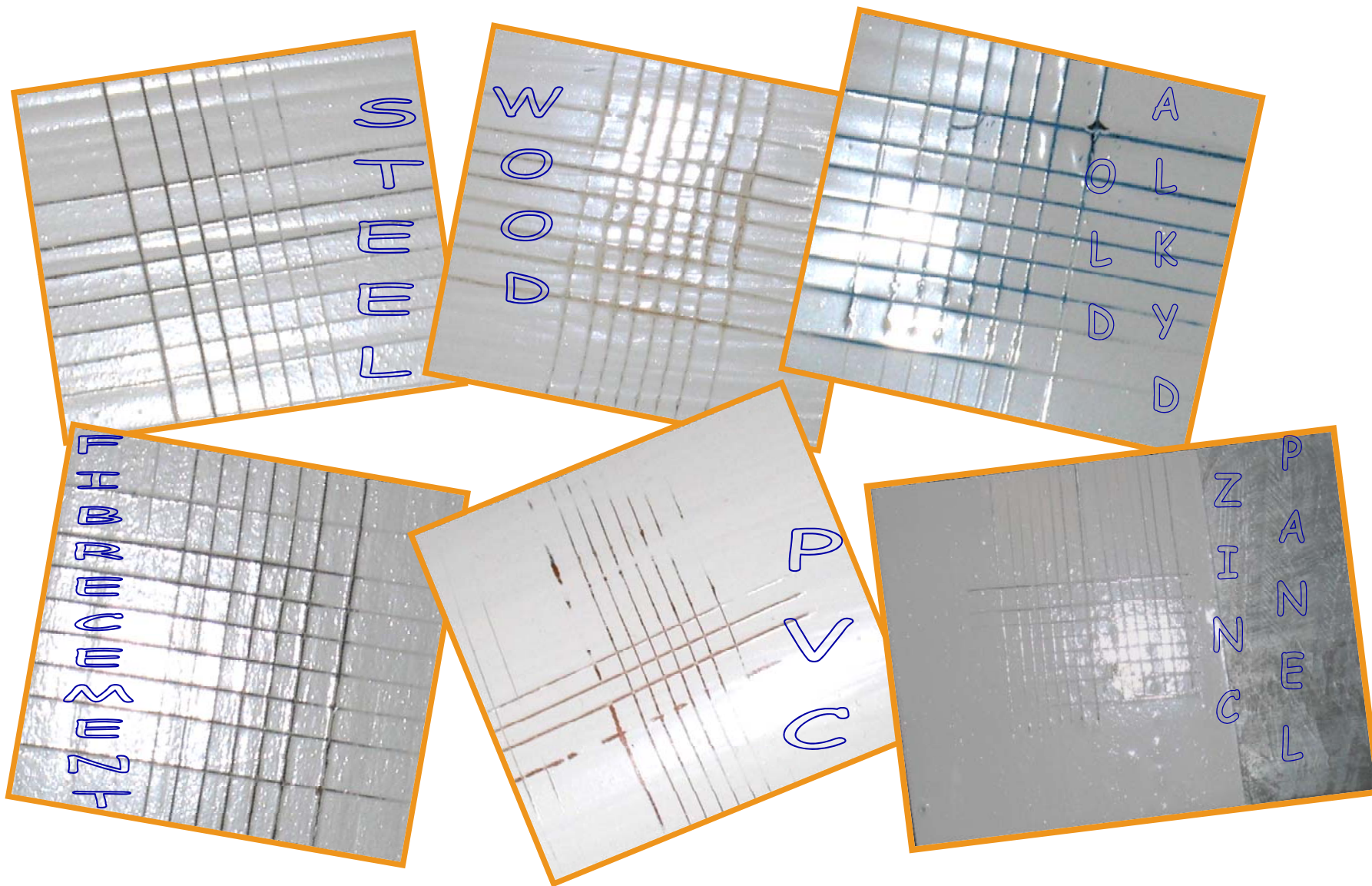
Vinavil 4830: WATER BASED ENAMEL

PERSOZ HARDNESS	After 24 h	70
ADHESION (**)	WOOD	0
(CROSS CUT TEST)	WALL	0
	STEEL	0
	OLD ALKYD PAINT	0
	ZINC PANEL	5
	BLU FTALO	
COLOUR ACCEPTANCE	Colour acceptance (30"/2')	< 0.2
	Rub out	< 0.5
	RED OXIDE	
ΔE^*	Colour acceptance (30"/2')	< 0.2
	Rub out	< 0.6



Vinavil 4830: WATER BASED ENAMEL

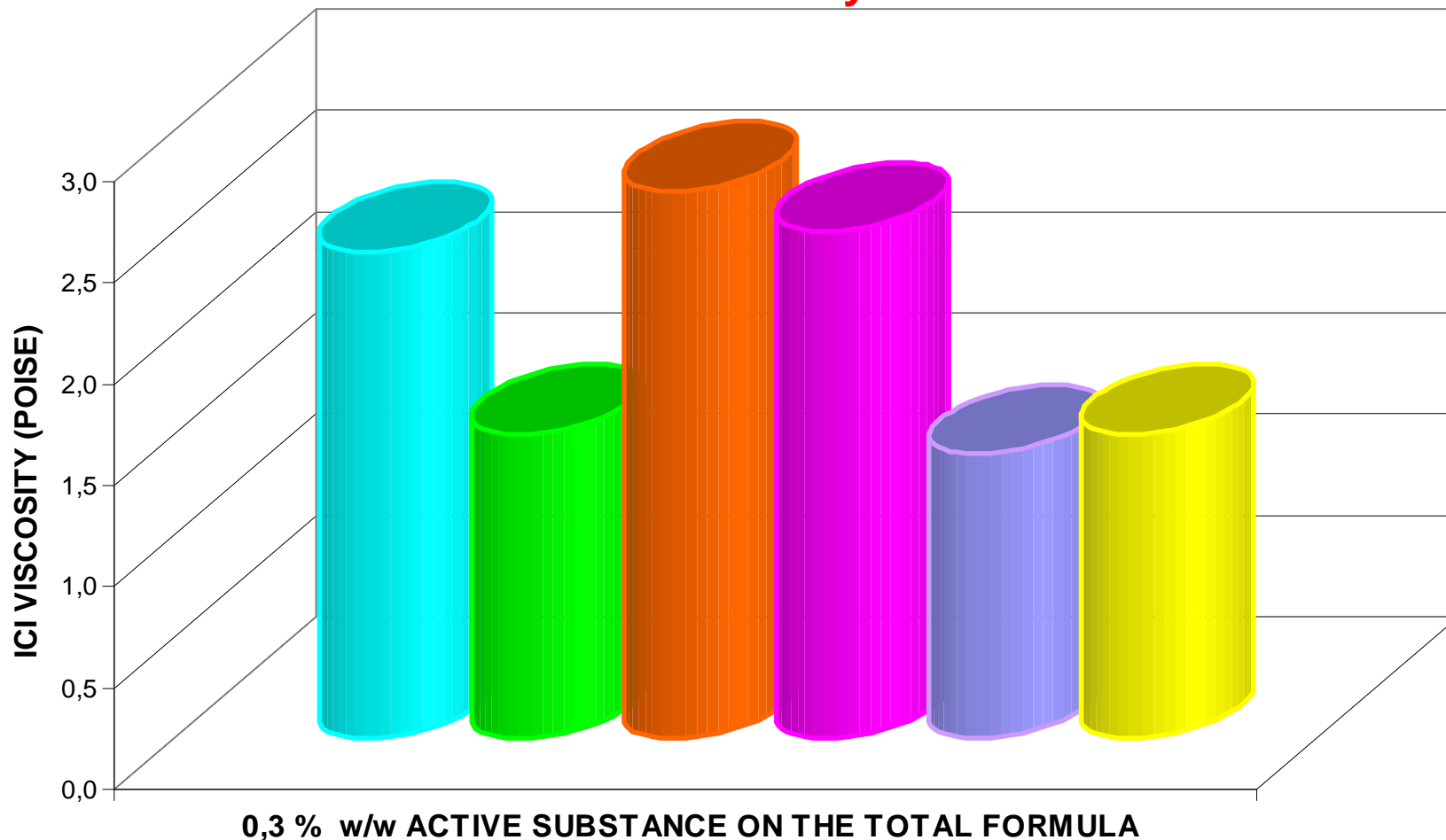
ADHESION ON DIFFERENT SUPPORTS: CROSS CUT TEST





CRILAT 4830: WATER BASED ENAMEL

ASSOCIATIVE THICKENERS COMPATIBILITY : ICI viscosity

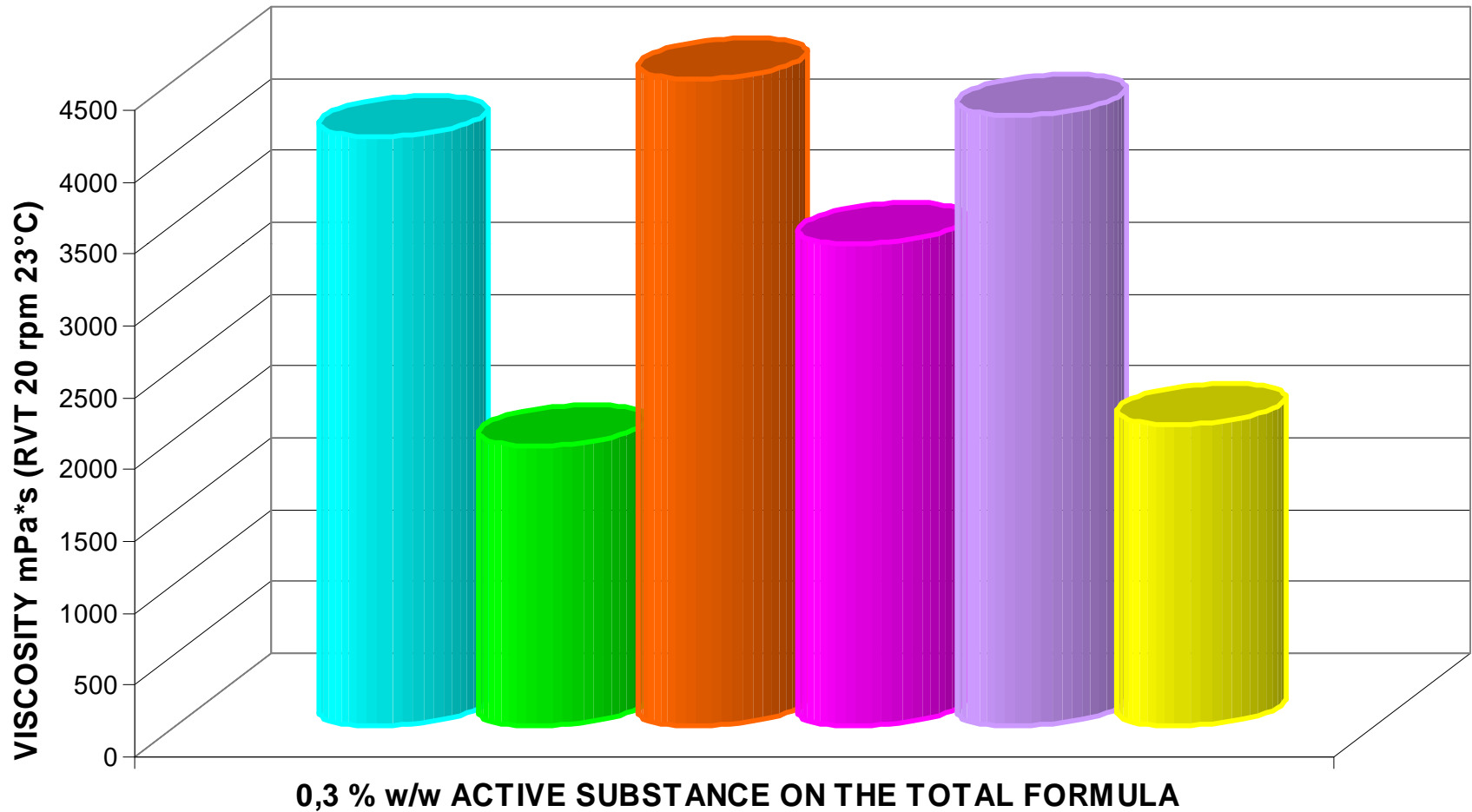


ACRYSOL RM 2020 VOC-FREE	RHEOLATE 212 VOC FREE	TAFIGEL PUR 80 APEO/VOC-FREE
COAPUR 2025 APEO/VOC-FREE	COAPUR 3025 VOC-FREE	COATEX RHEO 2000



CRILAT 4830: WATER BASED ENAMEL

ASSOCIATIVE THICKENERS COMPATIBILITY : Brookfield viscosity

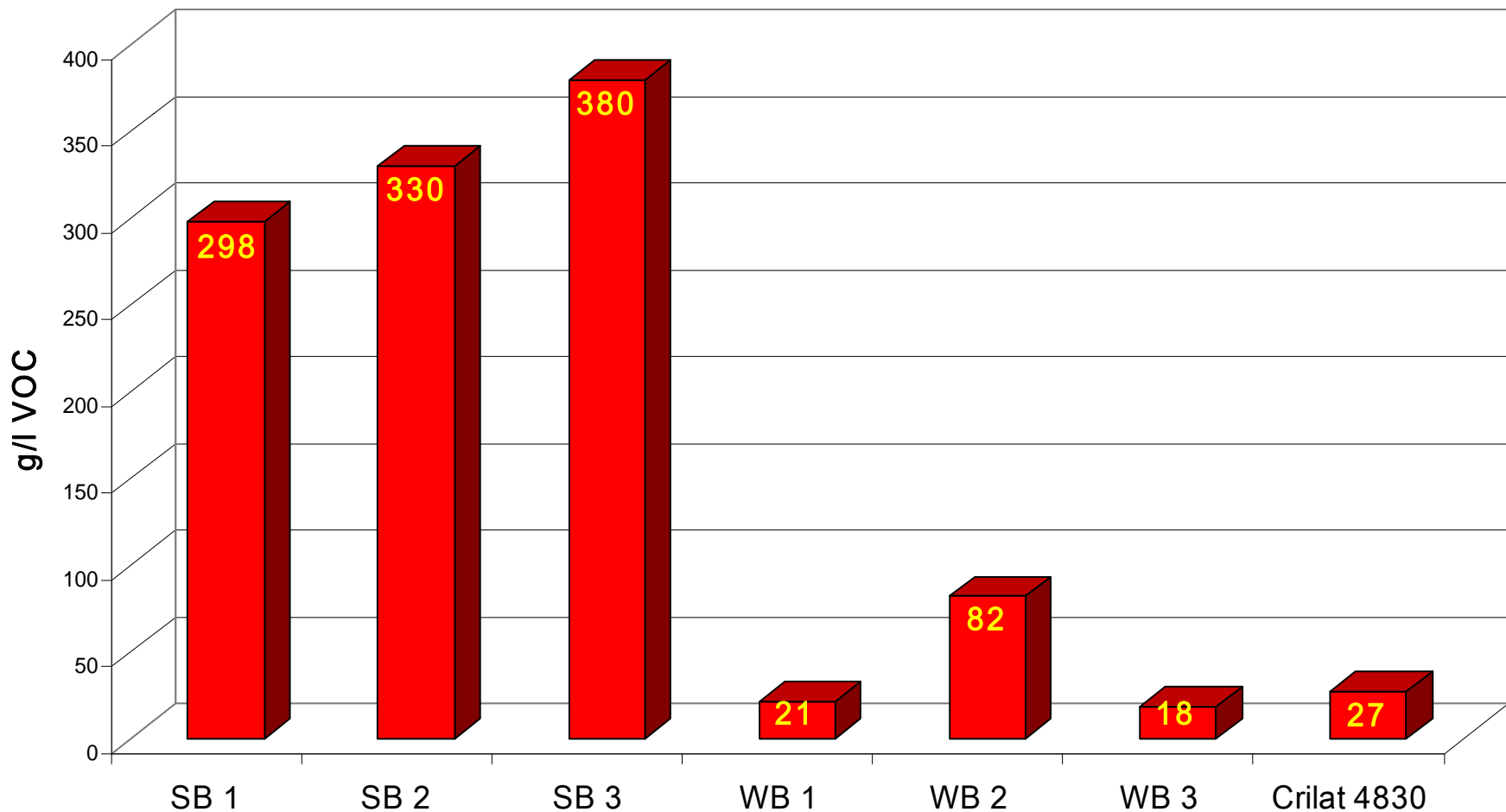


- | | | |
|---------------------------|-----------------------|------------------------------|
| ACRY SOL RM 2020 VOC FREE | RHEOLATE 212 VOC FREE | TAFIGEL PUR 80 APEO/VOC-FREE |
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Comparison: Water Base and Solvent Base enamel

VOC content in accordance with ISO 11890/1-2





Comparison: Water Base and Solvent Base enamel

ACCELERATED WEATHERING TEST (WOM)

In accordance with ASTM G 155-1

Gloss retention

		SB 1	SB 2	SB 3	WB 1	WB 2	WB 3	CRILAT 4830
	Initial	83.3	82.5	89.4	70.5	83.2	67.9	76.4
Gloss 60°	200 h	55.1	46.1	54.4	58.9	49.8	56.4	69.0
	400 h	51.7	45.4	53.8	49.8	49.8	41.4	69.1
	600 h	47.2	40.0	50.2	42.8	42.8	40.1	67.4



Comparison: Water Base and Solvent Base enamel

ACCELERATED WEATHERING TEST (WOM)

In accordance with ASTM G 155-1

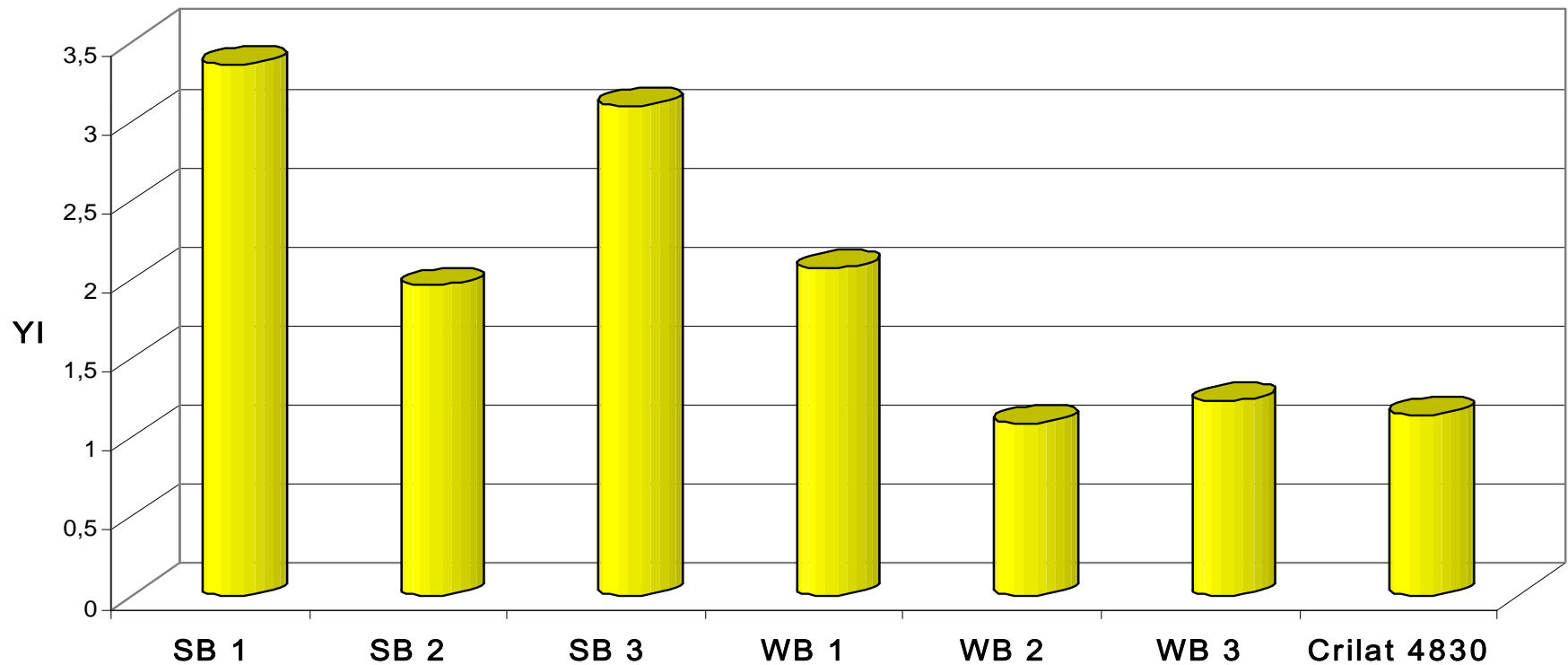
Colour fastness (2% blue-phtalocyanine)

		SB 1	SB 2	SB 3	WB 1	WB 2	WB 3	CRILAT 4830
ΔE^*	200 h	3.35	4.81	1.4	0.3	0.49	0.43	0.62
	400 h	3.51	6.87	5.17	0.77	0.35	0.95	0.84
	600 h	6.24	10.54	8.21	1.41	0.78	1.86	1.01



Comparison: Water Based and Solvent Based enamel

YELLOW INDEX





Vinavil 4830

Vinavil 4830 is suitable to formulate water based enamels with the following properties:

- High gloss;
- Excellent blocking resistance;
- Good adhesion;
- Good compatibility with colour pigments paste;
- Excellent levelling;
- Good water resistance;
- Low VOC content.