

SETAQUA® 47-1257

Water Reducible Acrylic Polyol

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SETAQUA® 47-1257 Overview

SETAQUA® 47-1257 is a water reducible acrylic polyol designed for use in high gloss, industrial bake enamel systems. When used in conjunction with melamine crosslinking resins such as Cymel® 303, it produces hard, high gloss coatings with excellent flexibility and chemical resistance.

Value Proposition

- High Gloss and good DOI
- Excellent UV resistance versus WR Alkyds
- Excellent hardness and flexibility
- Excellent solvent resistance
- Formulated VOC's <2.5 lbs/gal

Target Applications

- Industrial Bake Enamels
- Steel Drums

Starting Point Formula

SPF 4636-3 High Gloss White Bake Enamel

Key Features	SETAQUA 47-1257
Solids Content (% by wt.)	70
Solvent	IPA/EGMBE (83/17)
Viscosity as Supplied	Z5 to Z7
Acid Value	35-45
Color (APHA)	100 max.
TSCA	Exempt Polymer
CEPA	Not listed DSL or NDSL



High Gloss, White, WR Acrylic Bake Enamel

SPF #4636-3

Typical Properties

Weight Solids	41.47 %
Volume Solids	28.90 %
Weight per Gallon	9.74 lbs./gal
Density (g/mL):	1.17 g/mL
Wt. % Binder:	23.03 %
Vol. % Binder:	23.51 %
Wt. % Pigment:	18.44 %
P/B:	0.80
PVC:	18.65 %
VOC (lbs./gal)	2.24 lbs./gal.
VOC (g/L)	269 g/L

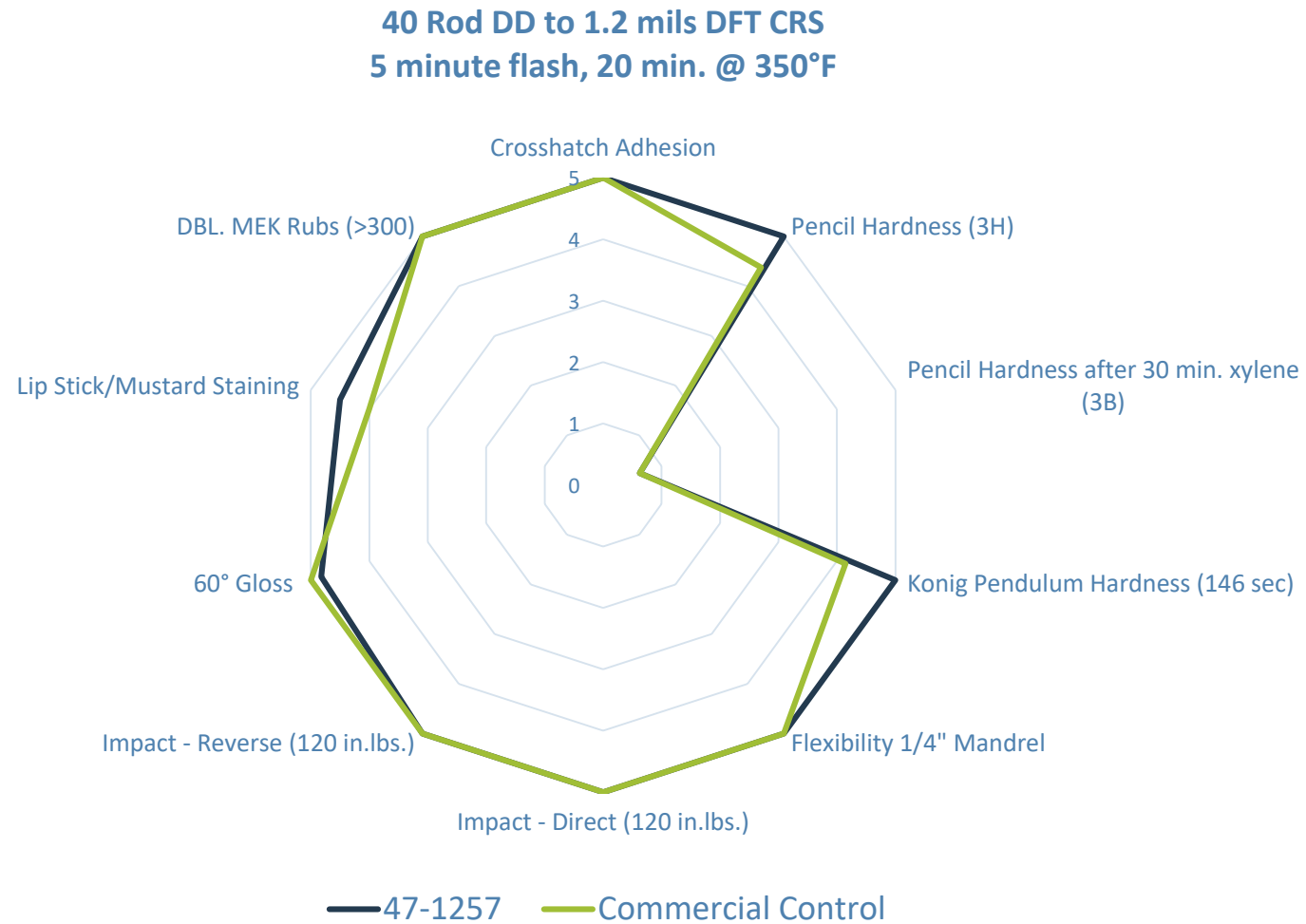
Film Properties

Application Method:	#40 wire-wound rod
	Bonderite 1000 CRS
Bake Schedule:	5 min. flash, 20 min. @350°F
DFT	1.2 mils
Adhesion	5B
Pencil Hardness	2H-3H
KPH (sec)	146
¼" Mandrel Bend	Pass
Impact (in.lbs.)	
Direct/Reverse	120/120
Gloss (20°/60°/85°)	56/80/97
Staining	
Mustard	Very Slight
Lipstick	None
Double MEK Rubs	>300



ALR 4636

Performance



High Gloss, White, WR Acrylic Bake Enamel

SPF #4636-3

<u>Pounds</u>	<u>Gallons</u>	<u>Weight %</u>	<u>Raw Material</u>	<u>Supplier</u>	<u>Function</u>
89.80	10.68	9.22	SETAQUA 47-1257	allnex	WR Acrylic Resin
4.67	0.63	0.48	DMEA	Nexeo Solutions	Neutralizing Amine
179.59	5.39	18.44	Ti-Pure Rutile R-706-11	Chemours	Prime Pigment
<i>HSD to 7.0 + NS Hegman then letdown with the following</i>					
166.13	19.75	17.05	SETAQUA 47-1257	allnex	WR Acrylic Resin
1.98	0.27	0.20	DMEA	Nexeo Solutions	Neutralizing Amine
44.83	4.48	4.60	CYMEL 303 LF Resin	Allnex	Melamine Crosslinking Resin
5.60	0.84	0.58	Isobutyl Alcohol		
5.60	0.86	0.58	Isopropyl Alcohol		
1.79	0.19	0.18	CYCAT 4045 Catalyst	allnex	Blocked p-TSA Catalyst
<i>Add the following under HSD and adjust pH to 7.8-8.3</i>					
474.12	56.92	48.67	Deionized Water		
974.11	100.00	100.00			

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