



NeoResins

NeoPac R-9036

NeoPac R-9036 is a polycarbonate urethane/acrylic hybrid which is designed to formulate non-yellowing finishes with excellent stain resistance. This environmentally friendly resin is both NMP and NPEO free.

Additionally, the aliphatic backbone of NeoPac R-9036 provides excellent UV resistance.

Key Benefits

- NMP Free
- Low VOC
- NPEO Free
- Excellent Stain Resistance
- Clear Non-yellowing Film
- Good Adhesions to Metal

Suggested Markets: Wood Finishes, OEM Vinyl Flooring & Industrial Metal

Typical Properties

Appearance	Translucent liquid
Total solids, by weight, %	35
Total solids, by volume, %	31
pH	7.9
Viscosity, Brookfield, cps, 25°C	150
Weight per gallon, lbs, 25°C	8.8
MFFT, (°C)	53
Freeze/thaw stability, cycles passed	Passes 5 cycles
Thermal stability, one month, 52°C	Satisfactory
Mechanical stability	Satisfactory
VOC, pounds per gallon minus water, (g/l)	46
Volatile Organic Compounds, by weight:	
Triethylamine, %	1.4

Bulletin R-9036
October 2004



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FILM PROPERTIES

Formula Properties

3 coats, maple wood, air dry 1 week @ ~72°F\50%RH

	WB-4185
Solids (weight %)	30%
Viscosity	156
VOC	298
Gloss 60	29.7
Gloss 20	85.3
Dry Rate	
Dry to Touch	45 min.
Set to Touch	1.5 hr.
Through Dry	2 hr.

Household Chemical Resistance

3 coats, maple wood, air dry 1 week @ ~72°F\50%RH

	Polycarbonate Urethane Dispersion	NeoPac R-9036
Water	9.8	9.9
Vodka (80 proof)	0	2.6
IPA (70%)	0	0
Fantastic	6.9	8.8
409	7.1	7.8
Windex	5.7	8.1
Mustard	10	10
Shoe Polish	10	10
	Rating 0-10, 10=Best	

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FILM PROPERTIES (Cont'd)

Mandrel Bend

3 mil drawdown, cold roll steel, oven dry 45 min 60 °C

	Polycarbonate Urethane Dispersion	NeoPac R-9036
Mandrel Bend	Pass	Pass

Steel Wool Resistance

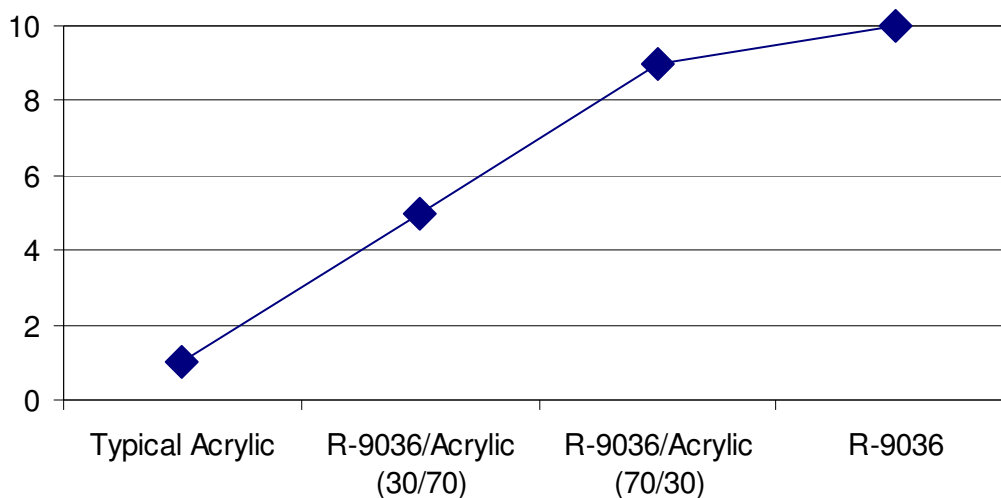
3 coats brush applied, 8 hrs between coats, sand after 1 coat, air dry 7 days

	Polycarbonate Urethane Dispersion	NeoPac R-9036
Number of Rubs:		
0	70.4	80
5	52.1	58
10	33.9	41
20	16.6	23
	<i>60° Gloss</i>	

Cordovan Shoe Polish Stain Resistance

3 mil draw-down, Leneta, air dry, 24 hrs., oven dry 1 hr. 60°C

Rating 1-10, 10=Best



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FORMULATION SUGGESTIONS

Coalescing Solvents

In order to form a well coalesced film, the addition of coalescing solvents and/or soft acrylic resin may be helpful. PnB, DPM and DPnB are excellent co-solvents. A blend of DPM and DPnB at approximately 30% on polymer solids is recommended. Texanol is not recommended for this product due to the viscosity shifts associated with some highly hydrophilic solvents.

Flow Agents

Recommended:

BYK 345	BYK Chemie
Dynol 604	Air Products
DrewFax 860	Ashland
Surfynol 104DPM	Air Products
Tego Flow 425	Tego Chemie

Not Recommended:

Envirogem AE02	Air Products
BYK 354	BYK Chemie
BYK 348	BYK Chemie
DrewFax 860	Ashland

Defoamers

Recommended:

BYK 094	BYK Chemie
BYK 028	BYK Chemie
Dehydran 1293	Cognis
Drew Plus S4386	Ashland
Foamstar A36	Cognis

Not Recommended:

Rhodoline 770	Rhodia
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Mar Additives

BYK 301	BYK Chemie
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Wax Additives

Polyemulsion 392N35	ChemCor
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FORMULATION SUGGESTIONS (Cont'd)

Acrylic Compatibility

Blends of NeoPac R-9036 With Acrylics:

NeoPac R-9036/ Acrylic*	70%/30%	30%/70%
XK205	SH	C
A639	H	SH
A640	C	C
A6015	C	C
A6069	SH	SH
A6092	SH	SH
XK12	SH	SH

Dry Film Rating

- C - Clear
- SH - Slight Haze
- H - Haze

* % on Resin solids

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Raw Material Suppliers

Material	Supplier
Dynol 604 Surfynol 104DPM	Air Products (800) 345-3148
Drew Plus L-475 Drew Plus S4386	Ashland Chemical Company Drew Division (800) 526-1015
BYK 094 BYK 345 BYK 028	BYK Chemie (203) 265-2086
Dehydran 1293 Foamstar A36	Henkel (800) 445-2207
DPM DPnB PnB	Lyondell Chemical (800) 321-7000
Tego Flow 425	Tego Chemie (800) 446-1809

FOR YOUR PROTECTION

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