

Exterior White Paint (Polyvinyl Acetate-Acrylic)
 Exterior White Paint (Polyvinyl Acetate-Acrylic)
 Exterior White Paint (Polyvinyl Acetate-Acrylic)
 Exterior White Paint (TT-P-55B, Type 2) (Polyvinyl Acetate-Acrylic)
 Exterior White Paint (Polyvinyl Acetate-Acrylic/Alkyd)
 Exterior White House Paint (Polyvinyl Acetate-Alkyl Maleate)
 Exterior White Paint (Polyvinyl Acetate-Ethylene)
 Exterior White Paint (Polyvinyl Acetate-Ethylene)
 Exterior White Paint (Polyvinyl Acetate-Ethylene)
 Exterior White Paint (Polyvinyl Acetate-Ethylene)
 Exterior White Paint (Polyvinyl Acetate-Ethylene)
 Exterior High-Hiding House Paint (Polyvinyl Acetate/Alkyd)
 Exterior House Paint (Polyvinyl Acetate/Alkyd)
 Exterior White House Paint (Polyvinyl Acetate/Alkyd)
 Exterior White Paint (Polyvinyl Acetate/Ester Adduct)
 Exterior White House Paint (Polyvinyl Acetate/Oil Polymer)
 Exterior Low-Cost White Paint (Polyvinyl Acetate/Resin)
 Exterior Self-Priming White Paint (Polyvinyl Acetate/Resin)
 Exterior White Paint (Polyvinyl Acetate/Resin)
 Exterior White Paint (Polyvinyl Acetate/Resin)
 Exterior White Paint (Polyvinyl Acetate/Resin)
 Exterior White Paint (Polyvinyl Acetate/Resin)
 Exterior White Paint (Polyvinyl Acetate/Resin)
 Exterior White Paint (Polyvinyl Acetate/Resin)
 Exterior White Paint (Polyvinyl Acetate/Resin)
 Exterior White House Paint (Polyvinyl Acetate-Acrylic/Alkyd)
 Exterior Paint (Polyvinyl Acetate-Acrylic/Oil Polymer)
 Exterior Semigloss House Paint (Polyvinyl Acetate-Acrylic/Resin)
 Exterior White Paint (Polyvinyl Acetate-Acrylic/Resin)
 Exterior White Paint (Polyvinyl Acetate-Acrylic/Resin)
 Exterior White Paint (Polyvinyl Acetate-Ethylene/Alkyd)
 Exterior White Paint (Polyvinyl Acetate-Ethylene/Resin)
 Exterior White House Paint (Resin)
 Exterior White Paint (Styrene-Acrylic/Ester Adduct)
 Exterior White Paint (Styrene-Acrylic/Ester Adduct)
 Exterior White Paint (Vinyl Chloride-Acrylic/Alkyd)
 Exterior House Paint (Vinyl Chloride-Acrylic/Alkyd)
 Exterior White Paint (Vinyl Chloride-Acrylic/Ester Adduct)

EXTERIOR TINT BASE PAINTS

Exterior Tint Base Paint (Acrylic)
 Exterior Tint Base Paint (Acrylic/Alkyd)
 Exterior Tint Base Paint (Acrylic/Alkyd)
 Exterior Tint Base Paint (Acrylic/Ester Adduct)
 Exterior Tint Base Paint (Acrylic/Ester Adduct)
 Exterior Tint Base Paint (Acrylic/Ester Adduct)
 Exterior Tint Base Paint (Acrylic/Resin)
 Exterior Tint Base House Paint (Linseed Oil)
 Exterior DeepTone Tint Base House Paint (Linseed Oil)
 Exterior Tint Base Paint (Polyvinyl Acetate)
 Exterior Tint Base Paint (Polyvinyl Acetate)
 Exterior Tint Base House Paint (Polyvinyl Acetate/Alkyd)
 Exterior Tint Base Paint (Polyvinyl Acetate/Ester Adduct)
 Exterior Tint Base Paint (Polyvinyl Acetate/Resin)
 Exterior Tint Base Paint (Polyvinyl Acetate/Resin)
 Exterior Tint Base Paint (Polyvinyl Acetate-Acrylic)
 Exterior Tint Base House Paint (Polyvinyl Acetate-Acrylic)
 Exterior Tint Base Paint (Polyvinyl Acetate-Dibutyl Maleate)
 Exterior Tint Base Paint (Polyvinyl Acetate-Ethylene)

- Exterior Tint Base Paint (Polyvinyl Acetate-Ethylene)
- Exterior Tint Base Paint (Polyvinyl Acetate-Ethylene)
- Exterior Tint Base Paint (Polyvinyl Acetate-Ethylene/Oil Polymer)
- Exterior Tint Base Paint (Polyvinyl Acetate-Acrylic/Alkyd)
- Exterior Tint Base House Paint (Polyvinyl Acetate-Acrylic/Alkyd)
- Exterior Tint Base House Paint (Resin)
- Exterior Tint Base House Paint (Vinyl Chloride-Acrylic/Alkyd)
- Exterior Tint Base Paint (Vinyl Chloride-Acrylic/Ester Adduct)

EXTERIOR WHITE AND TINT BASE PAINTS

- Exterior Flat White or Tint Base House Paint (Linseed Oil)
- Exterior White and Light Tint Base Paint (TT-P-96C) (Polyvinyl Acetate-Acrylic)
- Exterior White and Light Tint Base Paint (Polyvinyl Acetate-Acrylic/Alkyd)
- Exterior White and Light Tint Base Paint (Polyvinyl Acetate/Oil Polymer)

EXTERIOR TINTED PAINTS

- Exterior Green Paint for Stucco (Acrylic)
- Exterior Deeptone Black Trim Paint (Acrylic)
- Exterior Deeptone Blue Trim Paint (Acrylic)
- Exterior Deeptone Green Trim Paint (Acrylic)
- Exterior Deeptone Red Trim Paint (Acrylic)
- Exterior Deeptone Yellow Trim Paint (Acrylic)
- Exterior Deeptone Green House Paint (Linseed Oil)
- Exterior Black Paint (Polyvinyl Acetate-Acrylic)
- Exterior Dark Brown Paint (Polyvinyl Acetate-Acrylic)
- Exterior Dark Gray Paint (Polyvinyl Acetate-Acrylic)

EXTERIOR TRIM PAINTS

- Exterior Trim Paint (Acrylic)
- Exterior Trim Paint (Acrylic)
- Exterior Semigloss Tint Base Trim Paint for Bennett Star Colorants (Acrylic)
- Exterior Tintable White Trim Paint (Acrylic)
- Exterior White Trim Paint (Acrylic)
- Exterior White Trim Paint (Acrylic)
- Exterior White Gloss Trim Paint (Acrylic)
- Exterior Semigloss Paint (Acrylic/Resin)
- Exterior Semigloss Trim Paint (Polyvinyl Acetate/Resin/Alkyd)

EXTERIOR WOOD PRIMERS

- Exterior Stain Resistant Primer for Wood (Acrylic)
- Exterior Primer (Acrylic/Alkyd/Modifier)

EXTERIOR ROOF COATINGS

- Exterior Roof Paint for Asphalt and Asbestos Cement Shingles (Acrylic)
- Exterior Mildew Resistant White Roof Coating (Polyvinyl Acetate)
- Exterior High Sheen White Roof Coating (Polyvinyl Acetate-Acrylic)
- Exterior White Coating for Roofs and Asphalt Surfaces (Polyvinyl Acetate-Acrylic)
- Exterior Asphalt Roof Paint (Polyvinyl Acetate/Resin)

EXTERIOR SPECIALTY USE PAINTS

- Exterior High Quality White Topcoat (Acrylic)
- Exterior Topcoat for Masonry and Wood (Acrylic)
- Exterior High Quality White Topcoat (Acrylic/Alkyd)
- Exterior High Performance Masonry Tint Base Paint (Polyvinyl Acetate)
- Exterior Topcoat (Polyvinyl Acetate-Acrylic)
- Exterior Block Filler—Fine Texture, Heavy Body Type Paint (Polyvinyl Acetate-Ethylene)
- Exterior White Masonry Paint (Polyvinyl Acetate/Resin)
- Exterior Filcoat (Styrene Butadiene)

INTERIOR PAINTS FOR TRADE SALES

INTERIOR FLAT PAINTS

Interior Dripless Paint (Acrylic)
Interior Flat Enamel (Acrylic)
Interior Flat Paint (Acrylic)
Interior Flat Paint (Acrylic)
Interior Flat Paint (Acrylic)
Interior Flat Paint (Acrylic)
Interior Flat Paint (Acrylic)
Interior Flat Paint (Acrylic)
Interior Good Quality High Hiding Flat Paint (Acrylic)
Interior High Hiding, High Scrub Flat Paint (Acrylic)
Interior High Quality Dripless Flat Wall Paint (Acrylic)
Interior Paint (Acrylic)
Interior Wall Paint (Acrylic)
Interior Low Sheen High Hiding Flat Paint (Acrylic)
Interior Premium Quality Washable Flat Wall Paint with High Film Build (Acrylic)
Interior Premium Quality Washable Flat Wall Paint with Moderate Film Build (Acrylic)
Interior Wall Paint (Acrylic)
Interior Flat Paint (Alkyd)
Interior Good Quality Flat Paint (Latex Emulsion)
Interior High Quality Flat Paint (Latex Emulsion)
Interior Dripless Paint (Polyvinyl Acetate)
Interior Dripless Wall Paint (Polyvinyl Acetate)
Interior Flat Paint (Polyvinyl Acetate)
Interior Flat Paint (Polyvinyl Acetate)
Interior Flat Paint (Polyvinyl Acetate)
Interior Low Cost Flat Paint (Polyvinyl Acetate)
Interior Thixotropic Flat Wall Paint (Polyvinyl Acetate)
Interior Wall Paint (Polyvinyl Acetate)
Interior Wall Paint (Polyvinyl Acetate)
Interior Wall Paint (Polyvinyl Acetate)
Interior Wall Paint (Polyvinyl Acetate)
Interior Wall Paint (Polyvinyl Acetate)
Interior Flat Paint (Polyvinyl Acetate-Acrylic)
Interior Flat Paint (Polyvinyl Acetate-Acrylic)
Interior Flat Wall Paint (Polyvinyl Acetate-Acrylic)
Interior High Quality Flat Paint (Polyvinyl Acetate-Acrylic/Resin)---
Interior Flat Paint (Polyvinyl Acetate-Alkyl Malcate)
Interior Paint (Polyvinyl Acetate-Alkyl Malcate)
Interior Decorative Flat Paint (Polyvinyl Acetate/Resin Emulsion)
Interior Flat Paint (Polyvinyl Acetate/Resin Emulsion)
Interior Flat Paint (Resin Emulsion)
Interior Wall Paint (Resin Emulsion)
Interior Paint (Styrene-Butadiene)
Interior Paint (Styrene-Butadiene)
Interior Wall Paint (Styrene-Butadiene/Alkyd)
Interior Dead Flat Wall Paint (Styrene-Butadiene/Resin)
Interior Flat Wall Paint (Styrene-Butadiene/Resin)---
Interior High-Sheen Flat Wall Paint (Styrene-Butadiene/Resin)
Interior Low-Sheen Flat Wall Paint (Styrene-Butadiene/Resin)
Interior Flat Wall Paint (Styrene-Butadiene/Resin Emulsion)
Interior Flat Wall Paint (Styrene-Butadiene/Resin Emulsion)
Interior High Hiding Paint (Vinyl Acetate-Acrylic)
Interior Low Cost Flat Paint (Vinyl Acetate-Acrylic)
Interior Low Cost Wall Paint (Vinyl Acetate-Acrylic)

Interior Low Cost Wall Paint (Vinyl Acetate-Acrylic)
Interior Low Cost Flat Paint (Vinyl Acetate-Acrylic)
Interior One Coat Flat Paint (Vinyl Acetate-Acrylic)
Interior Paint (Vinyl Acetate-Acrylic)
Interior Flat Paint (Vinyl Acetate-Alkyl Maleate)
Interior Flat Paint (Vinyl Acetate-Ethylene)
Interior High Quality, Excellent Leveling Flat Paint (Vinyl Chloride-Acrylic)

INTERIOR FLAT WHITE PAINTS

Interior Dripless White Paint (Acrylic)
Interior Flat Paint (Acrylic) (TT-P-29)
Interior Flat White Paint (Acrylic)
Interior Flat White Paint (Acrylic)
Interior Flat White Wall Paint (Acrylic)
Interior High Quality Flat White Paint (Acrylic)
Interior Medium Cost Flat White Paint (Acrylic)
Interior Top Quality High Hiding White Paint (Acrylic)
Interior Flat Wall Paint (Acrylic/Resin) (TT-P-29)
Interior Flat White Paint (Polyvinyl Acetate)
Interior Flat White Paint (Polyvinyl Acetate)
Interior Flat White Paint (Polyvinyl Acetate) (TT-P-29)
Interior Flat White Wall Paint (TT-P-29) (Polyvinyl Acetate)
Interior Low Cost Flat White Paint (Polyvinyl Acetate) (TT-P-29)
Interior Low Cost White Wall Paint (Polyvinyl Acetate)
Interior Wall Paint (Polyvinyl Acetate-Acrylic) (TT-P-29)
Interior White Paint (Polyvinyl Acetate-Acrylic) (TT-P-29)
Interior White Paint (Polyvinyl Acetate-Alkyl Maleate)
Interior Flat White Paint (Polyvinyl Acetate/Resin)
Interior Low Cost Flat White Paint (Polyvinyl Acetate/Resin)
Interior Flat White Paint (Resin)
Interior Flat White Paint (Styrene-Butadiene)
Interior Flat White Paint (Styrene-Butadiene)
Interior Flat White Paint (Styrene-Butadiene)
Interior Flat White Paint (Styrene-Butadiene) (TT-P-29)
Interior High-Hiding, High-Viscosity White Paint (Styrene-Butadiene)
Interior Low Cost Flat White Paint (Styrene-Butadiene)
Interior White Paint (Styrene-Butadiene)
Interior White Paint (Styrene-Butadiene/Alkyd)
Interior White Paint (Styrene-Butadiene/Alkyd)
Interior Flat White Paint (Vinyl Acetate-Acrylic)
Interior Low Cost White Paint (Vinyl Acetate-Acrylic)
Interior Flat White Paint (Vinyl Acetate-Ethylene)
Interior White Paint (Vinyl Acetate-Ethylene)
Interior White Paint (Vinyl Acetate-Ethylene)
Interior White Paint (Vinyl Acetate-Ethylene)
Interior Wall Paint (Vinyl Chloride-Acrylic) (TT-P-29)

INTERIOR FLAT TINT BASE PAINTS

Interior Tint Base Paint (Acrylic)
Interior Tint Base Paint (Acrylic)
Interior Tint Base Paint (Acrylic-Vinyl Acetate)
Interior Deep Tone Base Paint (Polyvinyl Acetate)
Interior Flat Tint Base Paint (Polyvinyl Acetate)
Interior Flat Wall Medium Tint Base Paint (Polyvinyl Acetate)
Interior High Quality Flat Tint Base Paint (Polyvinyl Acetate)
Interior Tint Base for Rockford Color Tubes (Polyvinyl Acetate/Resin)
Interior Tint Base Paint (Vinyl Acetate-Ethylene)
Interior Flat Tint Base Paint (Styrene-Butadiene)
Interior Flat Tint Base Paint (Styrene-Butadiene)

Interior Flat Tint Base Paint (Styrene-Butadiene)
Interior High-Hiding, High-Viscosity Tint Base Paint (Styrene-Butadiene)
Interior Low Cost Flat Tint Base Paint (Styrene-Butadiene)
Interior Low Cost Flat Tint Base Paint (Styrene-Butadiene)
Interior Tint Base Paint (Styrene-Butadiene)

INTERIOR FLAT WHITE AND TINT BASE PAINTS

Interior Low Cost White and Light Tint Base Paint (Acrylic)
Interior Thixotropic Wall Paint (Acrylic)
Interior Flat Wall Paint (Polyvinyl Acetate)
Interior Flat White and Light Tint Base Paint (Polyvinyl Acetate)
Interior High Quality, One Coat White and Light Tint Base Paint (Polyvinyl Acetate)
Interior High Performance General-Purpose Paint (Polyvinyl Acetate)
Interior Low Cost One Coat Paint (Polyvinyl Acetate)
Interior One Coat White and Light Tint Base Paint (Polyvinyl Acetate)
Interior White and Tint Base Paint (Polyvinyl Acetate)
Interior White and Tint Base Paint (Polyvinyl Acetate)
Interior White and Light Tint Base Paint (Polyvinyl Acetate or Vinyl Acetate-Acrylic)
Interior White and Light Tint Base Paint (Polyvinyl Acetate-Alkyl Maleate)
Interior Flat Paint (Resin Emulsion)
Interior Flat Wall Paint (Styrene-Butadiene)
Interior Low Cost Wall Paint—White, Light, Tint Base or Ceiling Flat (Styrene-Butadiene/Resin)
Interior Flat Wall Paint (Vinyl Acetate-Acrylic)
Interior Flat White and Light Tint Base Paint (Vinyl Acetate Acrylic)
Interior One Coat High-Hiding White and Light Tint Base Paint (Vinyl Acetate-Acrylic)
Interior One Coat Hiding White and Light Tint Base Paint (Vinyl Acetate-Acrylic)
Interior White and Light Tint Base Paint (Vinyl Acetate-Acrylic)
Interior White or Tint Base Paint (Vinyl Acetate-Dibutyl Maleate)
Interior Flat Wall Paint (Vinyl Acetate-Ethylene)
Interior White and Tint Base Paint (Vinyl Acetate-Ethylene)
Interior White and Tint Base Paint (Vinyl Acetate-Ethylene)
Interior White and Tint Base Paint (Vinyl Acetate-Ethylene)
Interior Flat Paint (Vinyl Chloride-Acrylic)

INTERIOR SEMIGLOSS PAINTS

Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Tint Base Paint for Alkyd Dispersed Colorants (Bennett Star Colors) (Acrylic)
Interior Semigloss Paint (Acrylic/Alkyd)
Interior Semigloss Paint (Acrylic/Alkyd)
Interior Semigloss Paint (Alkyd)
Interior Semigloss Paint (Polyvinyl Acetate-Acrylic)
Interior Semigloss Paint (Vinyl Acetate-Acrylic)
Interior Semigloss Paint (Vinyl Acetate-Acrylic)
Interior Semigloss Paint (Vinyl Acetate-Acrylic)
Interior Semigloss Paint (Styrene-Butadiene/Acrylic)

Interior Flat Tint Base Paint (Styrene-Butadiene)
Interior High-Hiding, High-Viscosity Tint Base Paint (Styrene-Butadiene)
Interior Low Cost Flat Tint Base Paint (Styrene-Butadiene)
Interior Low Cost Flat Tint Base Paint (Styrene-Butadiene)
Interior Tint Base Paint (Styrene-Butadiene)

INTERIOR FLAT WHITE AND TINT BASE PAINTS

Interior Low Cost White and Light Tint Base Paint (Acrylic)
Interior Thixotropic Wall Paint (Acrylic)
Interior Flat Wall Paint (Polyvinyl Acetate)
Interior Flat White and Light Tint Base Paint (Polyvinyl Acetate)
Interior High Quality, One Coat White and Light Tint Base Paint (Polyvinyl Acetate)
Interior High Performance General-Purpose Paint (Polyvinyl Acetate)
Interior Low Cost One Coat Paint (Polyvinyl Acetate)
Interior One Coat White and Light Tint Base Paint (Polyvinyl Acetate)
Interior White and Tint Base Paint (Polyvinyl Acetate)
Interior White and Tint Base Paint (Polyvinyl Acetate)
Interior White and Light Tint Base Paint (Polyvinyl Acetate or Vinyl Acetate-Acrylic)
Interior White and Light Tint Base Paint (Polyvinyl Acetate-Alkyl Maleate)
Interior Flat Paint (Resin Emulsion)
Interior Flat Wall Paint (Styrene-Butadiene)
Interior Low Cost Wall Paint—White, Light, Tint Base or Ceiling Flat (Styrene-Butadiene/Resin)
Interior Flat Wall Paint (Vinyl Acetate-Acrylic)
Interior Flat White and Light Tint Base Paint (Vinyl Acetate Acrylic)
Interior One Coat High-Hiding White and Light Tint Base Paint (Vinyl Acetate-Acrylic)
Interior One Coat Hiding White and Light Tint Base Paint (Vinyl Acetate-Acrylic)
Interior White and Light Tint Base Paint (Vinyl Acetate-Acrylic)
Interior White or Tint Base Paint (Vinyl Acetate-Dibutyl Maleate)
Interior Flat Wall Paint (Vinyl Acetate-Ethylene)
Interior White and Tint Base Paint (Vinyl Acetate-Ethylene)
Interior White and Tint Base Paint (Vinyl Acetate-Ethylene)
Interior White and Tint Base Paint (Vinyl Acetate-Ethylene)
Interior Flat Paint (Vinyl Chloride-Acrylic)

INTERIOR SEMIGLOSS PAINTS

Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Paint (Acrylic)
Interior Semigloss Tint Base Paint for Alkyd Dispersed Colorants (Bennett Star Colors) (Acrylic)
Interior Semigloss Paint (Acrylic/Alkyd)
Interior Semigloss Paint (Acrylic/Alkyd)
Interior Semigloss Paint (Alkyd)
Interior Semigloss Paint (Polyvinyl Acetate-Acrylic)
Interior Semigloss Paint (Vinyl Acetate-Acrylic)
Interior Semigloss Paint (Vinyl Acetate-Acrylic)
Interior Semigloss Paint (Vinyl Acetate-Acrylic)
Interior Semigloss Paint (Styrene-Butadiene/Acrylic)

INTERIOR SEMIGLOSS ENAMELS

Architectural Eggshell Enamel (Resin)
Architectural Utility Semigloss Enamel (Resin)
Interior High Sheen Semigloss Enamel (Resin)
Architectural High Sheen Tint Base Enamel (Resin)
Interior Semigloss Enamel (Resin)
Architectural Semigloss Wall Enamel (Resin)
Interior White Semigloss Brushing Enamel (Resins)

INTERIOR HIGH GLOSS PAINTS AND ENAMELS

- Interior Full Gloss White Paint (Acrylic)
- Interior White Gloss Enamel (Acrylic/Resin)
- Interior High Gloss Enamel (Alkyd)
- Architectural Brushing Deeptone Enamel—Blue (Resin)
- Architectural Brushing Deeptone Enamel—Green (Resin)
- Architectural Brushing Deeptone Enamel—Red (Resin)
- Architectural Brushing Deeptone Enamel—Yellow (Resin)
- Architectural High Gloss Enamel (Resin)
- Architectural Improved High Gloss Brushing Enamel (Resin)
- Low Cost Gloss Enamel (Resin)

INTERIOR PRIMER-SEALERS

- Interior Primer-Sealer (Acrylic)
- Interior Fast-Drying Wall Primer (Polyvinyl Acetate)
- Interior Primer-Sealer (Polyvinyl Acetate)
- Low Temperature Coalescing Primer-Sealer (Polyvinyl Acetate)
- Interior Primer-Sealer (Vinyl Acetate-Ethylene)
- Interior Primer-Sealer (Vinyl Acetate-Ethylene)
- Interior Primer-Sealer (Styrene-Butadiene)
- Interior Enamel Undercoater (Resin)

INTERIOR CEILING PAINTS

- Interior Ceiling Flat Paint (Acrylic)
- Interior Very Low Cost Ceiling Paint (Acrylic)
- Interior Fiberglass Ceiling Tile Coating (Polyvinyl Acetate)
- Interior White Ceiling Paint (Polyvinyl Acetate)
- Interior Ceiling and Acoustical Tile Paint (Styrene-Butadiene)
- Interior Ceiling Flat Paint (Styrene-Butadiene)

INTERIOR INTUMESCENT FIRE RETARDANT PAINTS

- Interior Flame Retardant Intumescent Paint (Polyvinyl Acetate)
- Interior Fire Retardant Intumescent Paint (Polyvinyl Acetate)
- Interior Intumescent Fire Retardant Paint (Polyvinyl Acetate)
- Interior Fire-Resistant Flat Wall Paint (Polyvinyl Acetate)
- Interior Intumescent Paint (Polyvinyl Acetate)
- Interior Intumescent Paint (Polyvinyl Acetate/Resin)
- Interior Intumescent Paint (Polyvinyl Acetate/Resin)
- Interior Intumescent Fire Retardant Paint (Polyvinyl Acetate/Resin)

INTERIOR STIPPLE PAINTS

- Stipple and Texture Compound (Polyvinyl Acetate)
- Interior Stipple Paint (Polyvinyl Acetate-Acrylic)
- Interior Low Cost Stipple Paint (Styrene-Butadiene)

INTERIOR TINTED PAINT

- Interior Deeptone Blue Wall Paint (Acrylic)

SPECIALTY PAINTS AND COATINGS

POWDER PAINTS

- Powder Paint
- Powder Paint
- Powder Paint
- Powder Paint

INDUSTRIAL COATINGS AND PRIMERS

- Black Air-Dry Utility Enamel (Resin)
- Black Baking Enamel (Resin)
- High-Gloss White Appliance Enamel (Resin)
- Air-Dry Reactive Primer (Resin)
- Automotive Primer (Resin)
- Corrosion Inhibiting Metal Primer (Resin)
- Industrial Primer (Resin)
- Red Oxide Primer for Electrodeposition (Resin)
- Utility Baking Primer (Resin)
- Utility Metal Primer (Resin)

6-3. EXAMPLE OF WATER BASE PAINT FORMULATION

EXTERIOR HOUSE PAINT (ACRYLIC)

Raw Materials	Pounds	Gallons
1. Tap Water	49	5.88
2. Triton CF-10 Surfactant	2	0.22
3. Tamol 731 Dispersant (25%)	9	0.98
4. Nopco 1719-B Defoamer (50%)	4	0.50
5. Keltex P Thickener (1% solution)	87.5	10.49
6. Ti-Pure R-901 Rutile Titanium Dioxide	225	6.75
7. Ti-Pure FF Anatase Titanium Dioxide	25	0.77
8. Micro Mica C-1000 Pigment	30	1.27
9. Atomite Calcium Carbonate	125	5.54
10. Ethylene Glycol	20	2.15
Put the above paste through a high speed stone mill. Then add:		
11. Rhoplex AC-34 Acrylic Emulsion	547.5	61.52
Premix the next four raw materials before adding to the formulation:		
12. Mildewcide	8	0.95
13. Nopco 1719-B Defoamer (50%)	1	0.13
14. Tap Water	20	2.40
15. Ammonium Hydroxide (28%)	2	0.27
	1,155.0	99.82

Formulation Note

1% Keltex P solution is made by adding 1 pound Keltex P and 3.2 ounces unadjusted sodium hexametaphosphate to 99 pounds water.

Physical Constants

Total Solids Content: 57% by weight
 Viscosity: 73 Krebs Units
 pH: 9.0
 Weight per Gallon: 11.57 pounds
 Pigment Volume Concentration: 35%

Source: Kelco Co.; 75 Terminal Avenue; Clark, N.J. 07066. *Technical Application Bulletin No. I-11A-Ext.*

EXTERIOR ONE COAT PAINT (ACRYLIC)

Raw Materials	Pounds	Gallons
1. Tap Water	100	12.00
2. Potassium Tripolyphosphate	2	0.09
3. Daxad 30 Dispersant	4	0.42
4. Lecithin (R&R 551) Surfactant	4	0.46
5. Igepal CO-630 Surfactant	3	0.34
6. Nopco NDW Defoamer	3	0.40
7. Cellosize QP-4,400 Thickener	1	0.09
8. Propylene Glycol	100	11.63
9. Titanox CL-NC Rutile Titanium Dioxide	250	7.32
10. Zeolex 80 Silica Pigment	50	2.86
11. Horse Head XX-601 Zinc Oxide	50	1.07
12. Minex 4 Anhydrous Aluminum Silicate	70	3.23
Grind:		
13. Texanol Coalescing Agent	11	1.39
14. Rhoplex AC-388 Acrylic Emulsion	468	53.18
15. Super-Ad-It Fungicide	1	0.12
16. Igepal CO-630 Surfactant	1	0.11
17. Cellosize QP-4,400 Thickener (3% solution)	66	7.85
	1,184	102.56

Physical Constants

pH—Initial: 8.0
 pH—After Two Years: 8.6
 Viscosity—Initial: 82 Krebs Units
 Viscosity—After Two Years: 68 Krebs Units
 Chalking: 7+
 Weight per Gallon: 11.54 pounds

Key Properties

The use of Zeolex 80 to replace part of the Titanox CL-NC and Minex 4 in the control formulation results in lower costs with equivalent performance.

Source: J.M. Huber Corp.; P.O. Box 310; Havre de Grace; Md. 21078. *Suggested Formulation.*

EXTERIOR WHITE PAINT (ACRYLIC/ALKYD)

Raw Materials

	Pounds	Gallons
Pigment Dispersion:		
1. Deionized Water	276	33.07
2. Victawet 35B Wetting Agent	7	0.72
3. Igepal CO-630 Surfactant	5	0.57
4. Nopco NDW Defoamer	1	0.13
5. Phenylmercuric Acetate (18% Mercury)	1	0.09
6. Zinc Oxide No. 417W	75	1.61
7. Titanium Dioxide (Rutile)	170	4.86
8. Titanium Dioxide (Anatase)	30	0.93
9. Mica (325 Mesh, Water-Ground)	25	1.06
10. Magnesium Silicate	96	4.04
11. Natrosol 250HR Thickener	3	0.55
12. Aroplaz 1271 Long Oil Linseed Alkyd) Premix and	44	5.27
13. Advacar Zirco Catalyst-6%) add before	1	0.14
14. Advacar Cobalt-6% (Drier)) pigments	0.3	0.04
Adjust pH of grind to 9.0-9.5 with Ammonium Hydroxide before let down.		
Let Down:		
15. Rhoplex AC-35 Acrylic Emulsion	372	42.27
16. Ethylene Glycol	30	3.22
17. Carbitol Solvent	8	0.94
18. Nopco NDW Defoamer	1	0.13
	1,145.3	99.64

Physical Constants

Weight per Gallon: 11.50 pounds
 Pigment Volume Concentration: 35.0%

Key Properties

The Mica in the formulation provides the following:

- Reinforced paint film
- Better resistance to electricity, heat, light, moisture and chemicals
- Increased stress release
- Improved durability, cleansing properties and color retention
- Creates leaf parallel to the exposed surface of the paint film

Source: Wet Ground Mica Association, Inc.; Eden Hill Road; Newtown, Conn. 06470.
Eagle Picher Industries Suggested Formulation W-907.

EXTERIOR WHITE PAINT (ACRYLIC/RESIN)

Raw Materials

	Pounds	Gallons
Premix:		
1. Water, Deionized	100.0	12.00
2. Cellosize QP-15,000 Thickener (2% solution)	42.0	5.00
3. AMP Dispersant	4.0	0.52
4. Potassium Tripolyphosphate	2.0	0.10
Increase speed and add slowly:		
5. Chemacoil TA-100 Resin	65.0	8.33
Disperse pigments:		
6. Titanox RANC Rutile Titanium Dioxide	175.0	5.01
7. Titanox 1080 Anatase Titanium Dioxide	25.0	0.72
8. Mica (325 Mesh, Water-Ground)	25.0	1.16
9. Asbestine 3X Talc	150.0	6.30
Decrease speed and add slowly:		
10. Nopco NDW Defoamer	4.0	0.40
11. Ethylene Glycol)	18.6	2.00
12. Nudex PMA-18 Fungicide) Premix	8.0	0.80
13. Cellosize QP-15,000 Thickener (2% solution)	158.0	18.80
14. Rhoplex AC-34 Acrylic Emulsion	330.0	37.08
15. Super Cobalt Drier	1.0	0.13
	1,107.6	98.35

Physical Constants

Total Solids Content: 54.7% by weight
 Total Solids Content: 38.4% by volume
 Viscosity: 80 Krebs Units
 pH: 8.8
 Weight per Gallon: 11.26 pounds
 Pigment Volume Concentration: 35%

Key Properties

Good freeze-thaw stability and heat stability
 Stable pH
 Will resist corrosion in an unlined can
 Pleasant odor
 Excellent adhesion, tint retention, general durability qualities.
 Outstanding package stability
 Reduced grain cracking on weathering
 Good brushing and leveling character
 Much improved "build" per coat
 Good mildew resistance
 Economical
 Good mechanical stability

Source: Commercial Solvents Corp.; Polymer Dept.; 245 Park Ave.; New York, N.Y.
 10017. *The Use of AMP in Latex Emulsion Paints Formula JF-6833.*

EXTERIOR PAINT (POLYVINYL ACETATE-ACRYLIC/OIL POLYMER)

Raw Materials	Pounds	Gallons
1. Tap Water	100	12.00
2. Ethylene Glycol	25	2.69
3. Potassium Tripolyphosphate	1	0.05
4. Tamol 731 Dispersant (25%)	4	0.44
5. Metasol TK-100 Mildewcide	1	0.08
6. Merbac 35 Fungicide	1	0.10
7. Natrosol 250HR Thickener (1½% solution)	130	15.66
8. Igepal CTA-639 Surfactant	2	0.23
9. Nylal 300 Magnesium Silicate	55	2.32
10. Snowflake White Calcium Carbonate	120	5.32
11. Titanox CL-NC Rutile Titanium Dioxide	220	6.44
12. Colloid 677 Defoamer	1.5	0.20
Reduction:		
13. Resyn 2345 Polyvinyl Acetate-Acrylic Copolymer Emulsion	290	31.87
14. Igepal CTA-639 Surfactant	5	0.57
15. Castung 235 Oil Polymer Modifier)	40	5.10
16. Advacar Cobalt-6% (Drier)) Premix	1	0.13
17. Advacar Zirco Catalyst-6%)	2	0.28
18. Natrosol 250HR Thickener (1½% solution)	100	12.05
19. Colloid 677 Defoamer	1	0.14
20. Tap Water	42	5.04
	1,141.5	100.71

Physical Constants

Weight Per Gallon: 11.34 pounds

Key Properties

The mildewcide used, Metasol TK-100, is a highly effective fungicide meeting governmental requirements for removal of heavy metals, such as lead and mercury.

Source: Merck Chemical Division; Merck & Co., Inc.; Rahway, N.J. 07065. *Technical Service Bulletin PL-1017, 1171, dated 10/1/71, Suggested Formulation.*

EXTERIOR SEMIGLOSS HOUSE PAINT (POLYVINYL ACETATE-ACRYLIC/RESIN)

Raw Materials

	Pounds	Gallons
Premix:		
1. Tap Water	125.0	15.00
2. Triton X-100 Surfactant	6.0	0.68
3. Daxad 30 Dispersant	5.0	0.52
4. Potassium Tripolyphosphate	2.0	0.10
Increase speed and add slowly:		
5. Chemacoil TA-303 Resin Solution	190.0	25.00
Adjust speed to disperse pigments:		
6. Ti-Pure R-901 Rutile Titanium Dioxide	300.0	9.04
7. Nopco NDW Defoamer	2.0	0.26
Slow to mixing speed and add:		
8. Ethylene Glycol)	46.5	5.00
9. Nuodex PMA-18 Mildewcide) Premix	3.0	0.30
10. Cellosize QP-4,400 Thickener (3% solution)	2.0	- - -
11. Ucar Latex 180 Polyvinyl Acetate-Acrylic Copolymer	415.0	43.92
12. Super Cobalt Drier	1.5	0.18
13. Ammonium Hydroxide (28%)	2.0	0.25
	1,100.0	100.25

Physical Constants

Total Solids Content: 61.9% by weight
 Viscosity—Fresh: 86 Krebs Units
 Viscosity—30 Days: 86 Krebs Units
 Weight per Gallon: 10.97 pounds
 Pigment Volume Concentration: 16.3%

Key Properties

Excellent working properties
 Excellent resistance to water, solvents and chemicals
 Good mar resistance
 High gloss and good gloss retention
 Good flexibility
 Rapid, positive drying
 Good adhesion to metal surfaces
 Exceptional weatherability

Source: Commercial Solvents Corp.; 245 Park Avenue; New York, N.Y. 10017. *Chemacoil TA-303 Oxazoline Copolymer Resin Solution, Formulation No. XC-5357 (Experimental)*.

EXTERIOR TINT BASE PAINT (ACRYLIC/ESTER ADDUCT)

Raw Materials

	Pounds	Gallons
Dispersion:		
1. RF-6318 Solution Modifier	98.0	11.52
2. Cobalt Cyclodex (6%) Drier	2.0	0.25
3. Tap Water	90.0	10.79
4. Potassium Tripolyphosphate	3.0	0.15
5. Oleic Acid	15.0	2.02
6. Ammonium Hydroxide (28%)	2.0	0.27
7. Ethylene Glycol	20.0	2.15
8. Eldefoam 2892 Defoamer	2.0	0.27
9. Ti-Pure R-960 Rutile Titanium Dioxide	170.0	5.10
10. Imsil A-15 Silica	185.0	8.38
Let down:		
11. Eldefoam 2892 Defoamer	2.0	0.27
12. Tap Water	25.0	3.00
13. Cellosize WP-4400 Thickener (4% solution)	130.0	15.44
14. Tributyl Phosphate	10.0	1.22
15. Propylene Glycol	50.0	5.81
16. Rhoplex AC-388 Acrylic Emulsion	336.8	38.27
17. Ammonium Hydroxide (28%)	1.0	0.14
	1,141.8	105.05

Physical Constants

Total Solids Content: 51% by weight
 Viscosity: 76 to 80 Krebs Units
 pH: 8.3 to 8.5
 Weight per Gallon: 10.87 pounds
 Pigment Volume Concentration: 35.4%

Key Properties

The RF-6318 addition offers the following advantages over unmodified formulations:

- Improved hiding through better leveling, better film build and balanced brushing.
- Improved mildew resistance
- Excellent adhesion to chalky, smooth and hard surfaces and bare wood
- Improved color dispersion

Source: Monsanto, Plastic Products & Resins Division, 800 N. Lindbergh Blvd., St. Louis, Missouri 63166. *RF-6318: A Soluble Vehicle for Modifying Exterior Latex Paints.*

EXTERIOR TINT BASE PAINT (VINYL CHLORIDE-ACRYLIC/ESTER ADDUCT)

Raw Materials	Pounds	Gallons
Dispersion:		
1. RF-6318 Solution Modifier	156.0	18.33
2. Cobalt Cyclorlex (6%) Drier	2.0	0.25
3. Tap Water	75.0	8.99
4. Triton X-100 Surfactant	3.0	0.34
5. Ethylene Glycol	20.0	2.15
6. AMP Dispersant	4.5	0.58
7. Tamol 731 Dispersant (25%)	9.0	0.98
8. Eldefoam 2892 Defoamer	5.0	0.68
9. Ti-Pure R-902 or R-960 Rutile Titanium Dioxides	180.0	5.14
10. Celite 281 Diatomaceous Silica	50.0	2.86
11. Mica 325 Pigment	30.0	1.28
12. Duramite Calcium Carbonate	100.0	4.43
Let-Down:		
13. Tap Water	60.0	7.19
14. Geon 450 x 20 Vinyl Chloride-Acrylic Latex	260.0	27.84
15. Eldefoam 2892 Defoamer	1.0	0.14
16. Cellosize WP 4,400 Thickener (5% solution)	145.0	17.22
17. Super-Ad-It Solution Premix:	10.0	1.24
A. Super-Ad-It Fungicide	(4.65)	(0.57)
B. Oleic Acid	(0.24)	(0.03)
C. Ammonium Hydroxide (28%)	(1.39)	(0.19)
D. Tap Water	(3.72)	(0.45)
	1,110.50	99.64

Physical Constants

Total Solids Content: 53.2% by weight
 Viscosity: 80 to 84 Krebs Units
 pH: 7.7 to 7.9
 Weight per Gallon: 11.15 pounds
 Pigment Volume Concentration: 35.0%

Key Properties

The RF 6318 addition offers the following advantages over unmodified formulations:

- A more stable product will be produced
- Improved hiding through better leveling, better film build and balanced brushing
- Improved mildew resistance
- Excellent adhesion to chalky, smooth and hard surfaces and bare wood
- Improved color dispersion

Source: Monsanto, Plastic Products & Resins Division, 800 N. Lindbergh Blvd., St. Louis, Missouri 63166. RF-6318: A Soluble Vehicle for Modifying Exterior Latex Paints.

**EXTERIOR SEMIGLOSS TINT BASE TRIM PAINT
FOR BENNETT STAR COLORANTS (ACRYLIC)**

Raw Materials

	Pounds	Gallons
Charge the following to the tank:		
1. Propylene Glycol	10.0	1.16
2. Tamol 850 Dispersant	6.2	0.68
3. Nopco NXZ Defoamer	1.0	0.13
4. Tap Water	25.0	3.00
5. Titanium Dioxide (Rutile, high gloss grade)	185.0	5.42
Grind the above materials in a high speed mill (Cowles, 3,800 to 4,500 feet per minute for 20 to 25 minutes) and let down at a slower speed as follows:		
6. Tap Water	24.0	2.88
7. Rhoplex AC-507 Acrylic Emulsion	570.0	65.00
8. Tributyl Phosphate)	10.0	1.26
9. Super-Ad-It Fungicide)	9.0	1.11
10. Nopco NXZ Defoamer) Premix	2.0	0.26
11. Ammonium Hydroxide [28%]	2.0	0.27
12. Propylene Glycol)	84.1	9.79
13. Natrosol 250MR Thickener (3% solution) or Tap Water	96.0	11.51
14. Triton X-207 Surfactant	5.0	0.60
15. Triton X-114 Surfactant	0.8	0.08
	1,030.1	103.15

Physical Constants

Pigment Volume Concentration: 16.0%
 Total Solids Content: 43.7% by weight
 Total Solids Content: 34.0% by volume
 pH-Initial: 9.6
 Viscosity: 73.77 Krebs Units
 Gloss-60°: 80
 Gloss-20°: 35
 Weight per Gallon: 9.99 pounds

Key Properties

High initial gloss and excellent gloss retention
 Good gloss clarity
 Very good flow, film build and leveling
 Excellent cleanliness and color retention
 Very good adhesion to primed wood and aged glossy surfaces
 Resistant to chalking, chipping and cracking
 Excellent durability
 Good resistance to dirt pickup

Source: Rohm and Haas Co.; Independence Mall West; Philadelphia, Pa. 19105. *Data Sheet, Formulation XGT-07-2.*

EXTERIOR TINTABLE WHITE TRIM PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Charge the following to the tank:		
1. Propylene Glycol	70.0	8.14
2. Tamol 731 Dispersant (25%)	14.9	1.62
3. Nopco NXZ Defoamer	1.0	0.13
4. Tap Water	20.0	2.40
5. Titanium Dioxide (Rutile, high gloss grade)	275.0	8.05
Grind the above materials in a high-speed mill (Cowles, 3,800 to 4,500 feet per minute for 20 to 25 minutes) and let down at a slower speed, as follows:		
6. Tap Water	47.7	5.73
7. Rhoplex AC-507 Acrylic Emulsion	546.7	62.38
8. Texanol Coalescing Agent or Tributyl Phosphate)	18.4	2.32
9. Super-Ad-It Fungicide) Premix	9.0	1.11
10. Nopco NXZ Defoamer)	1.0	0.13
11. Ammonium Hydroxide (28%)	2.0	0.27
12. Propylene Glycol	30.0	3.49
13. Acrysol G-110 Thickener) Premix	10.0	1.13
14. Tap Water)	23.5	2.83
15. Oleic Acid	2.0	0.27
	1,071.2	100.00

Physical Constants

Pigment Volume Concentration: .23.0%
 Total Solids Content: 49.5% by weight
 Total Solids Content: 35.0% by volume
 pH: 9.4 to 9.7
 Viscosity: 76-82 Krebs Units
 Gloss-60°: 60 to 70
 Gloss-20°: 18 to 22
 Weight per Gallon: 10.7 pounds

Key Properties

High initial gloss and excellent gloss retention
 Good gloss clarity
 Very good flow, film build and leveling
 Excellent cleanliness and color retention
 Very good adhesion to primed wood and aged glossy surfaces
 Resistant to chalking, chipping and cracking
 Excellent durability
 Good resistance to dirt pickup

Source: Rohm and Haas Co.; Independence Mall West; Philadelphia, Pa. 19105. *Rhoplex AC-507 Acrylic Emulsion Polymer for Exterior Gloss Paints, Formulation G-07-3.*

EXTERIOR STAIN RESISTANT PRIMER FOR WOOD (ACRYLIC)

Raw Materials

	Pounds	Gallons
Initial Grind (Cowles, 3,800 to 4,500 rpm 10 to 15 minutes):		
Vehicle (22.94% by weight):		
1. Tap Water	127.37	14.57
2. Tamol 850 Dispersant	5.05	0.51
3. Triton CF-10 Surfactant	0.97	0.11
4. Pine Oil	3.04	0.39
5. Triton X-102-Surfactant	0.98	0.11
6. Ethylene Glycol	25.27	2.72
7. Hydroxyethylcellulose (2.5% solution)	89.04	10.60
8. Dowicil 100 Antimicrobial Agent	1.33	0.08
9. Foamaster Defoamer	0.98	0.11
Pigment (29.70% by weight):		
10. Titanium Dioxide (Nonchalking Rutile)	202.25	6.07
11. Halox CW-15 Pigment	126.49	5.84
Let Down (Cowles 2,250 to 2,400 rpm):		
Let Down Vehicle (47.36% by weight):		
12. Acrylic Resin (46% Nonvolatile)	518.25	58.23
13. Triton CF-10 Surfactant	0.97	0.11
14. Aerosol OT, 25% (Fluidifier)	4.00	0.44
15. Foamaster Defoamer	0.98	0.11
	1,106.97	100.00

Physical Constants

Pigment Volume Concentration: 32.54%	Total Solids Content: 36.59% by volume
Weight per Gallon: 11.07 pounds	pH: Approximately 9.0 to 9.4
Total Solids Content: 51.23% by weight	Viscosity at 75°F: 70-80 Krebs Units

Key Properties

Does not show strong tannin staining or bleed through
 Particularly effective on wood which has a tendency to stain or bleed,
 including cedar and redwood
 Decreased nail head rusting
 Does not contain any lead pigments, as they are replaced by the
 Halox CW-15
 Excellent package stability and tannin blocking shelf life

Source: Halox Pigments; P.O. Box 486; 40 East Mall Plaza; Carnegie, Pa. 15106.
 Suggested Formulation 72-32-01.

EXTERIOR ROOF PAINT FOR ASPHALT AND ASBESTOS
CEMENT SHINGLES (ACRYLIC)

Raw Materials

	Pounds	Gallons
Add to mixer with agitation:		
1. Tap Water	125	15.01
2. Daxad 30 Dispersant	8	0.83
3. Colloid 581B Defoamer	2	0.31
4. Dibutyl Phthalate	3	0.34
5. Ti-Pure R-900 Rutile Titanium Dioxide	200	5.72
6. Busan 11-M1 Pigment	150	5.40
7. Mica (325 Mesh, Water Ground)	25	1.06
8. Duramite Calcium Carbonate	50	2.20
Disperse in a high-speed mill. Add the following slowly with constant stirring:		
9. Ethylene Glycol) Premix	30	3.24
10. Cellosize WP-4,400 Thickener)	2	-
11. Rhoplex AC-34 Acrylic Emulsion	512	57.60
12. Igepal CTA-639 Surfactant	3	0.25
13. Tap Water	67	8.04
	1,177	100.00

Physical Constants

Viscosity: 86 Krebs Units
Pigment Volume Concentration: 37%
Weight per Gallon: 11.77 pounds

Key Properties

The Mica in the formulation provides the following:

- Reinforced paint film
- Better resistance to electricity, heat, light, moisture and chemicals
- Increased stress release
- Improved durability, cleansing properties and color retention
- Creates leaf parallel to the exposed surface of the paint film

Source: Wet Ground Mica Association, Inc.; Eden Hill Road; Newtown, Conn. 06470.
Formulation from Buckman Laboratories, Inc.

EXTERIOR HIGH QUALITY WHITE TOPCOAT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Grind in high-speed mill for 10 to 15 minutes:		
1. Hydroxyethylcellulose (2.5% solution)	85.0	10.30
2. Tap Water	68.5	8.22
3. Tamol 731 Dispersant (25%)	15.0	1.63
4. Triton CF-10 Surfactant	2.5	0.28
5. Antifoamer	1.0	0.13
6. Preservative (57% Mercury)	1.8	0.11
7. Ethylene Glycol	25.0	2.69
8. Titanium Dioxide (Nonchalking Rutile)	250.0	7.60
9. Talc	203.7	8.80
Let down at a slower speed as follows:		
10. Rhoplex AC-388 Acrylic Emulsion	459.8	52.23
11. Antifoamer	1.0	0.13
12. Ammonium Hydroxide (28%)	2.0	0.27
13. Tributyl Phosphate	11.5	1.41
14. Propylene Glycol	35.0	4.07
15. Tap Water and/or Hydroxyethylcellulose (2.5% solution)	17.5	2.13
16. Toner: GP 8814E Thalo Blue	0.05	-
17. Toner: GP 8807 B Lamp Black	0.05	-
	1,179.40	100.00

Physical Constants

Total Solids Content: 58.0% by weight
 Total Solids Content: 41.0% by volume
 Viscosity—Initial: 72-75 Krebs Units
 pH: 9.5 approximately
 Pigment Volume Concentration: 40.0%
 Weight per Gallon: 11.79 pounds

Key Properties

Extremely durable
 Superior leveling and film build
 Excellent color acceptance and tint retention
 Good wet adhesion
 High degree of resistance to dirt pickup
 Good hiding when applied in one coat to previously painted surfaces
 Good chalk resistance, adhesion to gloss alkyd, grain crack resistance on bare wood
 Good blister resistance

Source: Rohm & Haas Co.; Independence Mall West; Philadelphia, Pa. 19105. *Rhoplex AC-388; Universal Acrylic Emulsion Vehicle for Exterior and Interior Latex Paints, Formulation W-88-1 (Unmodified).*

EXTERIOR TOPCOAT FOR MASONRY AND WOOD (ACRYLIC)

Raw Materials

	Pounds	Gallons
Mix in change-can mixer:		
1. Triton CF-10 Surfactant	2.0	0.22
2. Tamol 731 Dispersant (25%)	9.0	0.98
3. Antifoam Agent	2.0	0.24
4. Tap Water	79.0	9.48
5. Rutile Titanium Dioxide	215.0	6.14
6. Anatase Titanium Dioxide	35.0	1.08
7. Mica (Water-Ground)	30.0	1.27
8. Calcium Carbonate	125.0	5.56
9. Natrosol 250M Thickener (2% solution)	70.0	8.43
10. Ethylene Glycol	20.0	2.15
Put paste through a high-speed stone mill and add:-----		
11. Rhoplex AC-33 Acrylic Emulsion	547.5	61.52
12. Preservative)	9.0	0.90
13. Antifoam Agent) Premix	2.0	0.24
14. Tap Water)	7.0	0.84
15. Ammonium Hydroxide (28%)	1.0	0.14
	1,153.5	99.19

Physical Constants

Total Solids Content: 57% by weight
 Viscosity: 70-75 Krebs Units
 Pigment Volume Concentration: 35%
 Weight per Gallon: 11.63 pounds

Key Properties

Excellent can, mechanical, chemical and viscosity stability
 Good rheological properties during application
 Excellent scrub resistance
 Better leveling
 Ease of brushing or rolling

Source: Hercules, Inc.; Cellulose & Protein Products Dept.; Wilmington, Del. 19899.
Rohm & Haas Co. Formulation No. 201A (Essentially).

INTERIOR DRIPLESS PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Premix A (1 through 5):		
1. Tap Water	73.1	8.85
2. Tamol 731 Dispersant (25%)	10.0	1.09
3. Triton CF-10 Surfactant	2.0	0.22
4. Balab Bubble Breaker 748 Defoamer	2.0	0.26
5. Natrosol 250MR Thickener (2½% solution)	50.0	6.05
Premix B (6 through 9):		
6. Tap Water	15.0	1.81
7. Diethylene Glycol	30.0	3.21
8. Super-Ad-It Fungicide	1.0	0.12
9. Carbitol Solvent	10.0	1.16
Premix C (10 through 12):		
10. Rutile Titanium Dioxide	160.0	4.57
11. Atomite Calcium Carbonate	150.0	6.64
12. Glomax LL Aluminum Silicate	94.0	4.23
Premix D (13 and 14):		
13. Rhoplex AC-22 Acrylic Emulsion	241.5	27.30
14. Balab Bubble Breaker 748 Defoamer	4.0	0.52
Mix A, B and C together and ball mill for 16 hours. Add D and mix thoroughly.		
Then add:		
15. Natrosol 250MR Thickener (2½% solution)	126.0	15.20
16. Veegum T Thickener (4% solution)	83.5	9.80
	1,052.1	91.03

Physical Constants

Viscosity: 95 Krebs Units
Adjusted pH: 9.5

Pigment Volume Concentration: 58%
Weight per Gallon: 11.56 pounds

Key Properties

Excellent can stability
Good rheological properties during application
Mechanically and chemically stable
Good viscosity stability
Excellent scrub resistance
Better leveling
Ease of brushing or rolling

Source: Hercules, Inc.; Cellulose & Protein Products Dept.; Wilmington, Del. 19899.
Rohm and Haas, Formulation No. 299 Modification.

INTERIOR FLAT ENAMEL (ACRYLIC)

Raw Materials

	Pounds	Gallons
1. Tap Water	150.0	18.00
2. Natrosol 250L Thickener	5.0	0.44
3. Troysan CMP Acetate Preservative	1.0	0.10
4. Tamol 731 Dispersant (25%)	7.0	0.79
5. Potassium Tripolyphosphate	1.5	0.08
6. Ethylene Glycol	15.0	1.61
7. Dalpad A Coalescing Agent	20.0	2.50
8. Nopco NDW Defoamer	3.0	0.40
9. Ti-Pure R-901 Rutile Titanium Dioxide	250.0	7.43
10. Optiwhite Aluminum Silicate	100.0	5.45
11. Thermo-Glance H Aluminum Silicate	100.0	4.56

Grind and let down with:		..
12. Rhoplex AC-490 Acrylic Emulsion	450.0	50.85
13. Tap Water and/or Natrosol 250L Thickener	82.0	9.79
	1,184.5	102.00

Physical Constants

Total Solids Content: 56.0% by weight
 Total Solids Content: 38.2% by volume
 Viscosity: 86-88 Krebs Units
 Weight per Gallon: 11.61 pounds
 Pigment Volume Concentration: 44.6%
 Reflectance: 0.925
 Contrast Ratio—As Is: 0.980
 Contrast Ratio—Toned to 0.86 Reflectance: 0.995

Key Properties

Developed for applications requiring ultimate performance regardless of cost
 Excellent enamel holdout, scrub resistance, stain removal and burnish resistance
 Excellent application properties, ease of brushing much better than current commercial products

Source: Burgess Pigment Co.; P.O. Box 349; Sandersville, Ga. 31082. *Burgess Pigment Formulation 1179.*

INTERIOR GOOD QUALITY HIGH HIDING FLAT PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
1. Tap Water		
2. Tamol 731 Dispersant (25%)	136.6	16.39
3. Triton CF-10 Surfactant	14.0	1.53
	2.0	0.22
Add while mixing:		
4. Colloid 600 Defoamer	1.0	0.13
Premix 5, 6 and 7 before adding:		
5. Ethylene Glycol	25.0	2.69
6. Hexylene Glycol	30.0	3.93
7. Super-Ad-It Fungicide	1.0	0.12
Add:		
8. Ti-Pure R-901 Rutilo Titanium Dioxide	250.0	7.15
9. Icecap K Aluminum Silicate	200.0	8.52
10. Silica	50.0	2.28
Grind on high-speed dispersion equipment for 15 minutes, then add at low speed:		
11. Tap Water	67.9	8.15
12. Colloid 600 Defoamer	2.0	0.26
13. Rhoplex AC-22 Acrylic Emulsion	364.0	41.13
14. Acrysol ASE-60 Thickener (2% preneutralized)	65.0	7.80
	1,208.5	100.30

Physical Constants

Weight per Gallon: 12.05 pounds
 Nonvolatile Content: 54.8% by weight
 Viscosity—Initial: 72 Krebs Units
 Viscosity—Equilibrated: 70-75 Krebs Units
 Adjust pH to: 9.5
 Pigment Volume Concentration: 52.3%
 85° Sheen: 14

Key Properties

Excellent roller application characteristics
 Good scrub and burnish resistance
 Outperforms current market offerings on a cost performance basis
 High hiding
 Outstanding flow and leveling
 Excellent adhesion to new and old surfaces
 Fast drying
 Good resistance to water and alkali
 Excellent color retention

Source: Burgess Pigment Co.; P.O. Box 349; Sandersville, Ga. 31082. *Rohm and Haas Co. Formula 341.*

INTERIOR WALL PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Grind on Morehouse Mill:		
1. Tap Water	225	26.90
2. Tarnol 731 Dispersant (25%)	4	0.40
3. Potassium Tripolyphosphate	1	-
4. Triton CF-10 Surfactant	3	0.30
5. Lecithin (R & R 551) Surfactant	4	0.50
6. Nopco NDW Defoamer	1	0.10
7. Ti-Pure R-911 Rutile Titanium Dioxide	200	6.01
8. Al-Sil-Ate W Aluminum Silicate	100	4.65
9. Snowflake White Calcium Carbonate	150	6.65
	688	45.51
Grind one pass		
Reduction:		
10. Methocel 65HG (4,000 cp) Thickener (3% solution)	90	10.6
11. Nopco NDW Defoamer	1.5	0.1
12. Carbitol Acetate Solvent	15	1.8
13. Ethylene Glycol	15	1.6
14. Rhodlex AC-34 Acrylic Emulsion	285	32.0
15. Super-Ad-It Fungicide	1	0.1
16. Tap Water	15	1.8
17. Methocel 65HG (4,000 cp) Thickener (3.5% solution)	35	4.2
18. Tap Water	10	1.2
19. Ammonium Hydroxide (28%)	1	0.1
	1,156.5	99.0

Physical Constants

Total Solids Content: 50.5% by weight
 Viscosity: 82 Krebs Units
 Weight per Gallon: 11.68 pounds
 Pigment Volume Concentration: 55.5%
 Relative Hiding Power (100 as Reference): 106
 Relative Tinting Strength (100 as Reference): 107
 Color—Brightness: 0.938
 Color—Yellowness: 0.036
 Semigloss Holdout: 77
 Stain Test: Very slight
 Scrubbability Test: Very slight

Key Properties

High hiding without loss of film integrity
 Films tested for enamel holdout, scrubbability, stain resistance and appearance
 and show equal quality to the comparative pigment grades
 High hiding power formulation may be prepared with 10% less titanium dioxide
 by replacing volume with an equal volume of extenders

Source: E.I. DuPont de Nemours, Inc.; Pigments Dept.; 1007 Market St.; Wilmington,
 Del. 19898. Report No. 11, PIR File 100-6: Ti-Pure Titanium Dioxide R-911
 for Emulsion Paint.

INTERIOR LOW COST WHITE AND LIGHT TINT BASE PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Mix at slow speed:		
1. Tap Water	120.0	14.39
2. Potassium Tripolyphosphate	4.0	0.19
3. Advawet #33 Surfactant	2.0	0.23
4. Tamol 731 Dispersant (25%)	5.0	0.55
5. Colloid 677 Defoamer	1.0	0.14
6. Propylene Glycol	20.0	2.33
7. Super-Ad-It Fungicide	0.5	0.06
8. Unitane OR-580 Rutile Titanium Dioxide	150.0	4.39
9. Al-Sil-Ate W Aluminum Silicate	175.0	7.98
10. Snowflake White Calcium Carbonate	100.0	4.42
----- Disperse in high speed mill and add:		
11. Tap Water	50.0	6.00
12. Colloid 677 Defoamer	1.0	0.14
13. Rhoplex AC-33 Acrylic Emulsion	200.0	22.47
14. Cellosize QP-4,400 Thickener (2½% solution)	300.0	35.63
	1,128.5	98.92

Physical Constants

Viscosity: 95 Krebs Units
Pigment Volume Concentration: 64%
Weight per Gallon: 11.41 pounds

Key Properties

A durable high-hiding acrylic formula that provides good application properties at low cost

Source: Freeport Kaolin Co.; Division of Freeport Sulphur Co.; 733 Third Ave., New York, N.Y. 10017. *Kaolin Technical Data Sheet-Formula 743.*

INTERIOR THIXOTROPIC WALL PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Grind:		
1. Tap Water	100.0	12.00
2. Kelzan D Thickener/Keltex P Thickener (6:1) (3% solution)	90.0	10.80
3. DeeFo 97-2 Antifoam/Defoamer	1.0	0.14
4. Daxad 30 Dispersant	14.0	1.68
5. Triton CF-10 Surfactant	3.0	0.34
6. Metasol 57 Fungicide	0.3	0.18
7. Hexylene Glycol	30.0	3.91
8. Ethylene Glycol	10.0	1.08
9. Zopaque RCL-3 Rutile Titanium Dioxide	250.0	7.15
10. Kaopaque 20 Aluminum Silicate	188.5	7.54
11. Gold Bond R Silica	46.0	2.09

Add in the above order to a high speed disperser.

Let Down:

12. Tap Water	120.3	14.44
13. DeeFo 97-2 Antifoam/Defoamer	1.0	0.14
14. Kelzan D Thickener/Keltex P Thickener (6:1) (3% solution)	25.0	3.00
15. Rhoplex AC-22 Acrylic Emulsion	314.3	35.51
16. Ammonium Hydroxide (28%)	2.0	-
	1,195.4	100.00

Using mild agitation, add in the above order.

Physical Constants and Key Properties

Nonvolatile: 52.6% by weight
 Viscosity, Sheared: 90 Krebs Units
 Weight per Gallon: 11.95 pounds
 Pigment Volume Concentration: 55.1%
 Sag: None
 Scrub Resistance (4,000 cycles): No failure
 Freeze-Thaw (3 cycles): Passes
 Application Properties:
 Roller Spattering: Very slight
 Roller Foam: None
 Roller Leveling: Good
 Brush Sag: None
 Brush Lapping: Good
 Brush Touch-up: Good
 Brush Leveling: Good
 Sheen & Color Uniformity: Good
 pH: 8.8
 Storage Properties: Good
 Tint Acceptance: Good

Compares very favorably with competitive purchased paints.

Source: Glidden-Durkee; Division of SCM Corp.; Pigments & Color Group; 3901 Hawkins Point Rd., Baltimore, Md. 21226. *Zopaque Formulary No. T-106.*

INTERIOR SEMIGLOSS PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Cowles Dispersion:		
1. Tap Water	116	14.00
2. Metasol TK-100 Fungicide	0.13	-
3. Tamol 731 Dispersant (25%)	11	1.22
4. Nopco NDW Defoamer	1	0.10
5. Propylene Glycol	180	21.50
6. Kelzan D Thickener	1	0.11
Mix at dispersion speed. Then add:		
7. Ti-Pure R-900 Rutile Titanium Dioxide	275	8.02
Grind for 30 minutes.		
Reduction:		
8. Rhoplex AC-22 Acrylic Emulsion	440	50.00
9. Rhoplex AC-61 Acrylic Emulsion	106	12.00
10. Nopco NDW Defoamer	2	0.20
11. Triton GR-7 Surfactant	2	0.23
	1,134.13	107.38

Physical Constants

Viscosity (24 hours): 78 Krebs Units
 Weight per Gallon: 10.56 pounds
 Gloss (60°): 60

Key Properties

High gloss value
 Viscosity remains stable during long term storage

Source: Kelco Co.; 75 Terminal Ave.; Clark, N.J. 07066. *Technical Bulletin I #17: Kelzan D in Acrylic Latex Semi-Gloss Enamels.*

INTERIOR SEMIGLOSS PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Grind:		
1. Propylene Glycol	65.0	7.53
2. Tamol 731 Dispersant (25%) or Colloid 111 Dispersant	10.5	1.15
3. Drew Defoamer L-475	2.0	0.26
4. Metasol TK-100 Mildewcide	0.5	0.04
5. Zopaque RCL-9 Rutile Titanium Dioxide	250.0	7.77
6. Barytes No. 1 Pigment	40.0	1.09
Sift in pigments at low speed on Cowles type dissolver. Increase speed and disperse for 20 minutes, under agitation and let down ingredients in the order given.		
Let Down:		
7. Propylene Glycol	90.0	10.42
8. Dowanol DE Solvent	58.0	7.07
9. Rhoplex AC-490 Acrylic Emulsion	500.0	56.18
10. Drew Defoamer L-475	2.0	0.26
11. Triton GR-7 Surfactant	1.5	0.17
12. Cellosize QP-4,400 Thickener (2% solution)	38.0	4.56
13. Tap Water	29.2	3.50
	1,086.7	100.00

Physical Constants and Key Properties

Nonvolatile: 48.0% by weight
 Nonvolatile: 34.9% by volume
 Consistency: 73 Krebs Units
 Weight per Gallon: 10.9 pounds
 Pigment Volume Concentration: 25.4%
 Sag, Baker Sag Liner: None
 Freeze-Thaw: Passes 4 cycles
 Roller Application properties:
 Roller Spattering: Moderate
 Roller Foaming: Moderate
 Leveling: Good
 Brush Application Properties:
 Brush Foaming: Moderate
 Brush Leveling: Good
 Brush Lapping: Good
 Brush Touch-up: Good
 Storage Properties: Excellent
 Tint Acceptance: Good
 Scrub Resistance (Gardner Tester): Passes 6,000 cycles
 Properties compare very favorably with similar purchased paints.

Source: Glidden-Durkee; Division of SCM Corp.; Pigments & Color Group;
 3901 Hawkins Point Rd.; Baltimore, Md. 21226. *Zopaque Formulary No. S-804.*

INTERIOR SEMIGLOSS PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Cowles Dispersion:		
1. Tamol 731 Dispersant (25%)	11	1.20
2. Nopco NDW Defoamer	2	0.27
3. Propylene Glycol	67	7.72
4. Ti-Pure R-900 Rutile Titanium Dioxide	275	7.87
Reduction:		
5. Propylene Glycol	113	13.11
6. Rhoplex AC-22 Acrylic Emulsion	440	49.72
7. Rhoplex AC-61 Acrylic Emulsion	106	11.98
8. Super-Ad-It Fungicide	1	0.12
9. Nopco NDW Defoamer	2	0.27
10. Tap Water	62	7.50
11. Triton GR-7 Surfactant	2	0.23
12. Kelzan D Thickener (2% solution)	50	6.00
	1,131	105.99

Physical Constants

Viscosity: 80 Krebs Units
 Weight per Gallon: 10.67 pounds
 Pigment Volume Concentration: .23.5%
 Gloss (60°): 50

Source: Kelco Co.; 75 Terminal Ave.; Clark, N.J. 07066. *Technical Application Bulletin No. ID-1304: Formulation 750.*

INTERIOR FULL GLOSS WHITE PAINT (ACRYLIC)

Raw Materials	Pounds	Gallons
Charge the following to a Cowles Mixer Tank and mix at low speed (approximately 1,500 feet per minute) for 5 minutes:		
1. Rhoplex AC-201 Acrylic Emulsion	187.5	20.95
2. Strodex PK-90 Surfactant	3.4	0.36
3. Triton CF-10 Surfactant	2.0	0.24
4. Drew Defoamer L-475	1.0	0.13
Slowly add the following, increasing the speed to 4,200 feet per minute and grind for 20 minutes:		
5. Titanox CL-NC Rutile Titanium Dioxide	257.0	7.44
Gradually add the following, blend at a low speed (approximately 1,500 feet per minute):		
6. Rhoplex AC-201 Acrylic Emulsion	137.5	15.38
7. Triethylamine*	4.0	0.48
8. Tap Water	30.0	3.63
9. Rhoplex AC-35 Acrylic Emulsion	325.0	36.30
	947.4	84.91

*Note: Add additional Triethylamine, if required, to stabilize the pH at 9.0 to 10.0.

Physical Constants

Pigment Volume Concentration: 20%
Titanium Dioxide/Binder Ratio: 46/54
Total Solids Content: 59% by weight
Total Solids Content: 48% by volume
Weight per Gallon: 11.16 pounds

Key Properties

Rust inhibiting characteristics
Good adhesion to the substrate with minimum effect on scrub resistance
The Strodex provides a significant safety factor for the formulator by preventing reflocculation and by having a synergistic effect

Source: Dexter Chemical Corp.; 845 Edgewater Road; Bronx, N.Y. 10474. *Dexter Technical Data from Rohm & Haas Co.*

INTERIOR CEILING FLAT PAINT (ACRYLIC)

Raw Materials

	Pounds	Gallons
Pigment:		
1. Titanox RA-50 Rutile Titanium Dioxide	250	7.14
2. Lorite Calcium Carbonate/Diatomaceous Silica	220	10.38
3. Celite 281 Diatomaceous Silica	80	4.17
	550	21.69
Vehicle:		
4. Casein	55	5.29
5. Tamol 731 Dispersant (25%)	9	1.04
6. Acrysol A-3 Thickener (10% solution)	20	2.38
7. Carbitol Solvent	15	1.74
8. Butyl Carbitol Acetate Solvent	15	1.83
9. Propylene Glycol	20	2.33
10. Rhoplex AC-33 Acrylic Emulsion	290	33.33
11. Carboxymethylcellulose 12M31 (5% solution)	30	3.53
12. Colloid 581B Defoamer	3	-
13. Boric Acid	7	-
14. Tap Water	310	37.21
	774	88.68
	1,324	110.37

Physical Constants

Total Solids Content: 53.7% by weight
 Viscosity: 70 Krebs Units
 Weight per Gallon: 12.0 pounds
 Pigment Volume Concentration: 56.4%
 Pigment: 41.5%
 Nonvolatile Vehicle: 20.9%
 Vehicle: 58.5%

Source: DeLore Division; National Lead Co.; Mississippi River and River Des Peres; St. Louis, Mo. 63111. *Formula Suggestion.*

POWDER PAINT

Raw Materials

1. Kaysoy 300-C or Kaysoy 200-D Soy Proteins	Pounds
2. Casein	47.5
3. Calcium Hydroxide	31.5
4. Sodium Fluoride	20.0
5. Sodium Sesquicarbonate	5.0
6. Fillers (Clay, Mica)	2.5
7. Titanium Dioxide (Rutile)	365.0
8. Daxad 23 Dispersant or Borax	500.0
9. Preservative (Dowicide A or G, Santobrite or Vancide 51Z)	5.0
	1.0
	977.5

Source: ADM (Archer Daniels Midland) Co.; 733 Marquette Ave.; Minneapolis, Minn. 55440.
Kaysoy Industrial Proteins Booklet, ADM Formula #201-14.

HIGH-GLOSS WHITE APPLIANCE ENAMEL (RESIN)

Raw Materials

	Pounds	Gallons
Roller Mill Grind:		
1. Ti-Pure R-900 Rutile Titanium Dioxide	250	7.16
2. Kelsol 1472 Water-Thinnable Vehicle	100	11.12
Let Down:		
3. Kelsol 1472 Water-Thinnable Vehicle	620	70.00
4. Tap Water	100	12.00
	1,070	100.28

Formulation Notes:

1. Note that the viscosity of this enamel is relatively high for spray applications. However, preliminary studies indicate that by spraying at this consistency, blister-free films can be obtained with no flash-off time before baking. Flash-off times of 5 to 10 minutes are required at film thicknesses greater than one mil if additional water and/or water-miscible solvent is added.
2. Use 2.5/1.0 ratio of pigment to vehicle for 3X Roller Mill Grind.
3. Add 3% Tributyl Phosphate on total enamel if bubbling is encountered.

Physical Constants

Total Solids Content: 50.0% by weight

Viscosity: 65 Krebs Units

Weight per Gallon: 10.67 pounds

Pigment Volume Concentration: 19.3%

Vehicle Solids Content: 35.1%

Key Properties

The only water-thinned enamel with properties equivalent to the best solvent-thinned systems

No fire hazard

Reduced insurance rates

Can be applied by dip, spray or electrodeposition

Less zoning laws problems

Source: Spencer Kellogg; Division Textron, Inc.; 120 Delaware Ave.; Buffalo, N.Y. 14240.
Formulation Guide, Formula 4266F-P-7.

CORROSION INHIBITING METAL PRIMER (RESIN)

Raw Materials

	Pounds	Gallons
1. Red Iron Oxide R-3200	150.0	3.56
2. Light Yellow Zinc Oxide	25.0	0.86
3. Oncor M50 Lead Chromate-Lead Silicate Pigment	25.0	0.73
4. Snowflake White Calcium Carbonate	100.0	4.44
5. Nytal 300 Magnesium Silicate	50.0	2.16
6. Kelsol 1209 Vehicle	210.0	24.42
7. Tap Water	500.0	60.00
8. Lead Naphthenate (24% Lead)	7.4	0.74
9. Cobalt Naphthenate (6% Cobalt)	0.9	0.10
10. Manganese Naphthenate (6% Manganese)	0.9	0.10
11. Activ-8 Drier Accelerator and Stabilizer	0.12	0.015
12. Acrysol ASE-60 Thickener	2.9	0.33
	1,072.22	97.455

Formulation Notes:

1. Most types of manufacturing equipment may be used.
2. Larger quantities of zinc chromate cause instability.

Physical Constants

Total Solids Content: 45.0% by weight
 Viscosity: 70 Krebs Units
 Weight per Gallon: 11.00 pounds
 pH: 8.3 (Original)
 Pigment Volume Concentration: 41.8%
 Vehicle Solids Content: 20.6%

Key Properties

Good dip tank stability
 Excellent salt corrosion, water and humidity resistance
 Excellent sanding and enamel holdout
 Good package and freeze-thaw stability

Source: Spencer Kellogg; Division Textron, Inc.; 120 Delaware Ave.; Buffalo, N.Y. 14240.
Formulation Guide, Formula 315-P-71.

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11. 결 론

유화중합의 합성에는 각 계열의 단량체와의 합성조건에 따라서 여러 종류의 POLYMER를 얻을수있는 점이 특징이다. 경쟁회사와의 제품의 경쟁을 피하여 용도개발이 쉬게할수있다. 또한 제품 만들때에 고분자량과 신속한 반응속도로 공정시간의 활용도 타 고분자 물질생산보다 용이한점도 특징이라 할수있다. 특별히 앞날의 도료사업은 무공해 도료생산에 성장추세가 급격히 진행되어야 하겠으며 에멀존공업도 이에 동반의 길로 발전되어야 하리라고 생각된다. 지면 관계상 보다더 유화중합의 기술적인 문제를 깊이 또는 광범하게 다루지 못함을 유감스럽게 생각한다.

실제 현장을위해서 사용하고 참고 할수있도록 노력을 하였으며 경험이나 실험을 기초로 실제 응용할수 있도록 도움이 되기를 기대한다.

앞으로 난연성 에멀존, 금속가공용 에멀존, 목재가공용에멀존, 고광택용 에멀존, 고탄성 에멀존, 프라스틱가공용 에멀존, 장기 내수용 에멀존, 낙서방지용 에멀존 ...등 유성용수지를 대치할수있는 제품들이 많이 개발되어야 한다.

기술적인 개발여지가 많이 남아 있으며 특별히 도료용 에멀존 개발은 도료공업의 획기적인 발전을 가져올수있는 전문화된 산업구조 형태로 에멀존 공업과 협조 개발하는 진취적인 체제로 성장 발전하기를 기대하는 것입니다.

1992. 12. 8.