We create chemistry

Joncryl® 2980

Product Description **Joncryl 2980 is a self-crosslinking, wet-look acrylic emulsion for cementitious substrates.**

Key Features & Benefits

- Wet-look appearance on substrates
- Early resistance to water blushing
- Excellent penetrating adhesion to concrete
- Good dirt resistance
- Resistance to hot-tire pickup
- Capable of 100 g/L VOC

Chemical Composition **Acrylic emulsion**

Properties

Typical Properties

Appearance		translucent emulsion
Non-volatile at 145°C (1g, 60 minutes)	%	~ 46.0
pH at 25°C		~ 9.5
Viscosity at 25°C (Brookfield #2LV, 30 rpm, 60 seconds)	cps	< 300
Density at 20°C	lbs/gal	8.68
MFFT	°C	18
Tg	°C	10
Freeze-thaw stable		No

These typical values should not be interpreted as specifications.

Applications

Joncryl 2980 is a one-component, self-crosslinking acrylic emulsion for interior and exterior clear and pigmented coatings at 100 g/L VOC with a good balance of properties on cementitious substrates. When used as a clear, Joncryl 2980 gives a wet-look appearance on decorative concrete, natural and artificial stone, and brick. Key uses include residential garage floors, patio, and walkway coatings.

Joncryl 2980 is recommended for applications such as:

- Exterior and interior decorative concrete, natural or artificial stone, and brick coatings

Formulation Guidelines

Solvent Levels - The solvent package described in Formula 32004-6H provides good film formation at 25°C and less than and equal to 50% relative humidity. Based upon targeted application humidity conditions, it is recommended to optimize the combination of Ethylene glycol mono n-butyl ether (EB) and Dowanol[1] DPnB. Do not use Texanol[2] if needed to maintain early water blush resistance property.

Thickeners – Associative thickeners used to adjust viscosity are preferred due to their minimal effect on gloss. Thickeners that offer some pseudo-plasticity are useful in preventing sag.

Starting Point Formulations

The following starting point formulations are recommended for an initial evaluation of Joncryl 2980. Additional optimization of the formulations may be required to achieve desired results for specific applications.

CLEAR CONCRETE COATING, Formula 32004-6H

Add under agitation:		
Materials	**Pounds**	**Gallons**
Joncryl® 2980	555.66	63.91
Hydropalat WE 3323 EC	3.33	0.40
FoamStar® ED 2522 NC	4.03	1.48
Pre-blend, then add the following under agitation:		
Water	265.86	31.91
Ethylene glycol mono n-butyl ether (EB)	19.95	2.66
Dowanol[1] DPnB	4.50	0.59
Then add under agitation:		
Rheovis® PU 1291 EC	0.78	0.09
Total	**854.11**	**100.00**

Formulation Attributes

Solids	29.56% by wt, 29.03% by volume
pH	8.5
VOC (calculated)	100 g/l

PIGMENTED CONCRETE COATING, Formula 32004-7Bb

Add under agitation using HSD blade:		
Materials	**Pounds**	**Gallons**
Water	133.23	15.99
Foamstar® SI 2281	3.70	0.44
Surfynol[3] CT-324	7.39	0.84
TiPure[4] R-706	100.34	3.01
Minex[5] 7	155.27	7.16
Attagel® 50	4.22	0.21
Rheovis® PE 1320 EC	1.33	0.15
Disperse at 2000 rpm for 20 minutes, then pre-mix and add while still under agitation:		
Water	53.3	6.40
Dowanol[1] DPnB	33.92	4.49
Then add:		
Joncryl® 2980	515.00	59.23
Foamstar® SI 2281	3.70	0.44
Joncryl® Wax 120	9.51	1.16
Rheovis® PE 1320 EC	3.82	0.44
Total	**1,024.71**	**100.00**

Formulation Attributes

Solids	49.3% by wt, 38.7% by volume
pH	8.5
VOC (calculated)	104 g/l

Testing Information

Water-whitening – Two coats of Formula 32004-6H paint were applied onto two substrate samples (drying intervals between coats were four hours) and cured at 25°C at both 50% and 20% relative humidity for 16 hours. Both samples were immersed in a 24-hour continuous water bath. No water whitening was observed on tile substrates.

Hot-tire Pick-up – The coating was subjected to a tire surface heated to 60°C under 20 psi. Excellent release without force of the tire from the coated surface was observed without any film peeling.

Chemical – The exposure of the coating to various chemicals was tested using a spot test. The rating was observed after a one-hour exposure test and scraping of the film with a wooden stick. See Tables 1 and 2 for rating results.

Table 1. Three-day cure chemical testing results of Clear Formula 32004-6H.

Chemical	Initial Rating	Recovery Rating
10% HCl	2	0
Betadyne	1	0
BBQ sauce	1	0
50% EtOH	4	0
70% IPA	4	4
DI water	0	0
Brake fluid	4	3
Power steering fluid	0	0
Gasoline	4	4
Radiator fluid	0	0
Windshield washer fluid	1	0
Bleach	0	0
10% NaOH	0	0
Windex[8]	1	0
Formula 409[9]	0	0
Diet Pepsi[10]	1	0
Red wine vinegar	0	0
Mustard	0	0

Degree of effect: 0 = No effect; 1 = Very slight effect; 2 = Slight effect; 3 = Moderate effect; 4 = Severe effect

Table 2. Three-day cure chemical testing results of Pigmented Formula 32004-7Bb.

Chemical	Initial Rating	Recovery Rating
10% HCl	1	0
Betadyne	4	3
BBQ sauce	1	1
50% EtOH	1	1
70% IPA	4	3
DI water	0	0
Brake fluid	2	3
Power steering fluid	1	0
Gasoline	4	0
Radiator fluid	0	0
Windshield washer fluid	0	0
Bleach	0	0
10% NaOH	0	0
Windex[6]	0	0
Formula 409[7]	0	0
Diet Pepsi[8]	0	0
Red wine vinegar	0	0
Mustard	0	0

Degree of effect: 0 = No effect; 1 = Very slight effect; 2 = Slight effect; 3 = Moderate effect; 4 = Severe effect

[1]Trademark of The Dow Chemical Company.
[2]Trademark of Eastman Chemical Company.
[3]Registered trademark of Evonik Industries AG.
[4]Registered trademark of The Chemours Company FC, LLC.
[5]Registered trademark of Covia Holdings LLC.
[6]Registered trademark of S.C. Johnson & Son, Inc.
[7]Registered trademark of The Clorox Company.
[8]Registered trademark of Pepsi Co.

Safety

General The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Safety Data Sheet All safety information is provided in the Safety Data Sheet for Joncryl 2980.

Storage

Please refer to the “Handling and Storage of polymer dispersions” brochure.

Important

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Good Chemistry at Work

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