



## Technical Data Sheet

### PRIMAL™ 3479 Floor Finish Polymer

#### Features & Benefits

- **Formulation Flexibility**—PRIMAL™ 3479 Floor Finish Polymer offers formulating flexibility to make a range of performance profiles from minimum maintenance to maximum burnish response.
- **Gloss**—Properly formulated polishes based on PRIMAL™ 3479 Polymer are an excellent choice for high profile floor areas where an extremely high gloss look is desirable. Supermarkets and retail stores are good examples of this type of application.
- **Foam Control**—Since PRIMAL™ 3479 Polymer is a low foaming polymer, properly formulated polishes made with PRIMAL™ 3479 Polymer exhibit less foam in the bucket and during application than most conventional polishes.

#### Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property <sup>1</sup>	Unit	Result
Appearance		Milky-white liquid
Solids content	%	38
Minimum Film-Formation Temperature (MFFT)	°C	~ 70
pH		~ 8.5
Viscosity (Brookfield LVT, #1 spindle, 60 rpm)	cP	< 100
Density @ 25°C (Lb./U.S. gal.)		~ 8.8
Specific gravity		1.07
Ionic charge		Anionic
Freeze/thaw stability	cycles	≥ 3

1. These properties are typical but do not constitute specifications. For product specifications, please contact Customer Information Group (CIG) of The Dow Chemical Company.

#### Description

PRIMAL™ 3479 Polymer is a low foaming, metal-crosslinked, modified acrylic polymer that provides the basis for the most economical polish formulations. Properly formulated polishes based on PRIMAL™ 3479 Polymer are an excellent choice well suited for use in a variety of maintenance environments, such as retail, school, and medical facilities.

## Standard Performance Characteristics

### PRIMAL™ 3479 Polymer Formulation N-79-6 (20%)

As with all Dow floor polish polymers, PRIMAL™ 3479 Polymer shares a number of common performance characteristics.

The suggested starting point polish formulations made with PRIMAL™ 3479 Polymer meet or exceed an industry slip resistance standard as tested by the Standard Test Method ASTM D-2047. These polishes can be formulated to a range of solids levels from 15 to 25 percent. PRIMAL™ 3479 Polymer provides for the manufacture of polishes that can be applied at floor temperatures of 50°F (10°C) and above.

Formulation N-79-6 is a suggested starting point formulation that provides excellent lay down gloss and very good burnish response and wear performance properties. N-79-6 is formulated with PRIMAL™ 1531C Resin, a high gloss, all-acrylic, alkali-soluble resin (ASR), which imparts excellent leveling characteristics.

Material in Proper Order of Addition	Percent by Weight	Lb./100 U.S. Gal.	Gal./100 U.S. Gal.
Water	41.19	352.66	42.25
KATHON™ CG/ICP Preservative	0.04	0.34	0.04
Capstone FS-65 <sup>1</sup> fluorosurfactant	0.04	0.31	0.04
CARBITOL™ Solvent, low gravity	5.72	48.97	5.93
DOWANOL™ DPM Glycol Ether	0.95	8.13	1.02
UCAR™ Filmer IBT	0.96	8.22	1.04
Tributoxy Ethyl Phosphate	1.46	12.50	1.47
PRIMAL™ 3479 Polymer	40.47	346.49	38.93
PRIMAL™ 1531C Resin (38%) <sup>2</sup>	3.41	29.20	3.32
A-C 540N ethylene-acrylic copolymer (30%) <sup>3</sup>	3.09	26.46	3.21
A-C 325N polyethylene polymer (35%) <sup>4</sup>	2.65	22.69	2.73
Defoamer <sup>5</sup>	0.02	0.17	0.02
<b>Totals</b>	<b>100.00</b>	<b>856.14</b>	<b>100.00</b>

### Formulation Constants

Theoretical Non-Volatile Solids	20%
Theoretical Density, Lb./U.S. Gal.	~ 8.6
Polymer/ASR/Wax Ratio	83/7/10

1. Recommended Wetting Agent: Capstone FS-65 fluorosurfactant (supplied by DuPont at 25% active solution)
2. Alternative ASRs: Michem dispersion MD-91530 (30%) and Chemrez 30 solution (30%)
3. Commercial Trade Names: Michem emulsion 44730 (30%) and Chemcor poly emulsion 540N40SP (40%)
4. Commercial Trade Names: Michem emulsion 93235 (35%) and Chemcor poly emulsion 325G (35%)
5. Recommended Defoamers: BYK-024, BYK USA, Inc., [info@byk.com](mailto:info@byk.com); or Agitan 786, Münzing, [info@munzing.us](mailto:info@munzing.us)

These formulation suggestions are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.

**PRIMAL™ 3479  
Polymer  
Formulation  
N-79-7 (20%)**

Formulation N-79-7 is a suggested starting point formulation that provides excellent lay down gloss and very good burnish response and wear performance properties. N-79-7 is similar to formulation N-79-6 but formulated with a solution ASR.

Material in Proper Order of Addition	Percent by Weight	Lb./100 U.S. Gal.	Gal./100 U.S. Gal.
Water	44.65	382.45	45.84
<b>KATHON™ CG/ICP Preservative</b>	0.04	0.35	0.04
Capstone FS-65 <sup>1</sup> fluorosurfactant	0.04	0.33	0.04
<b>CARBITOL™ Solvent, low gravity</b>	4.83	41.36	5.00
<b>DOWANOL™ DPM Glycol Ether</b>	0.93	7.98	1.00
Benzoflex 50 plasticizer	0.93	7.98	0.85
Tributoxy Ethyl Phosphate	1.45	12.40	1.46
<b>PRIMAL™ 3479 Polymer</b>	40.28	344.96	38.76
Solution ASR (30%) <sup>2</sup>	1.39	11.90	1.35
A-C 540N ethylene-acrylic copolymer (30%) <sup>3</sup>	2.51	382.45	2.59
A-C 325N polyethylene polymer (35%) <sup>4</sup>	2.93	25.11	3.05
Defoamer <sup>5</sup>	0.02	0.17	0.02
<b>Totals</b>	<b>100.00</b>	<b>856 .51</b>	<b>100.00</b>

**Formulation Constants**

Theoretical Non-Volatile Solids	20%
Theoretical Density, Lb./U.S. Gal.	~ 8.6
Polymer/ASR/Wax Ratio	83/7/10

1. Recommended Wetting Agent: Capstone FS-65 fluorosurfactant (supplied by DuPont at 25% active solution)
2. Alternative ASRs: Michem dispersion MD-91530 (30%) and Chemrez 30 solution (30%)
3. Commercial Trade Names: Michem emulsion 44730 (30%) and Chemcor poly emulsion 540N40SP (40%)
4. Commercial Trade Names: Michem emulsion 93235 (35%) and Chemcor poly emulsion 325G (35%)
5. Recommended Defoamers: BYK-024, BYK USA, Inc., info@byk.com; or Agitan 786, Münzing, info@munzing.us

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**Handling  
Precautions**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

**Usable Life and Storage**

Store products in tightly closed original containers at temperatures recommended on the product label.

**Disposal Considerations**

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations.

**Limitations**

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

**Health and Environmental Information**

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, [consumer.dow.com](http://consumer.dow.com) or consult your local Dow representative.

[consumer.dow.com](http://consumer.dow.com)

**LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY**

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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