Technical Data Sheet

RHOPLEX™ 3830 Floor Finish Polymer

Features & Benefits

- High solids (35%) concentrate = Lower handling cost – A distinct feature of RHOPLEX™ 3830 Floor Finish Polymer is its ability to be formulated to produce a 35% polish concentrate. The concentrated formulation can be diluted by the formulator to the solids level they require.
- Very good durability = Better looking floors – RHOPLEX™ 3830 Polymer based polishes offer very good laydown gloss, gloss retention and durability.
- Maintenance flexibility = Fewer product polishes based on RHOPLEX™ 3830 Polymer perform well under the full range of floor maintenance procedures, from mop/scrub/recoat to ultra-high-speed burnishing.

Typical Properties

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

Property	Unit	Result
Appearance		Milky-white liquid
Solids Content	%	38
Minimum Film-Formation Temperature (MFFT)	°C	~66
pH		~8.6
Viscosity (Brookfield LVT, #1 Spindle, 60 rpm)	cP	< 100
Density @ 25°C	Lb/U.S. gal	~8.8
Specific Gravity		1.05
Ionic Charge		Anionic
Freeze/Thaw Stability	cycles	≥ 3

Description

RHOPLEX™ 3830 Polymer is based on a distinct polymer technology that allows the formulator to develop high performance polishes with an excellent balance of properties.

The innovative polymer technology features a distinctive polymerization process that enhances the polymer's stability which makes it possible to formulate high performance polish concentrates.

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Description (Cont.)

RHOPLEX™ 3830 Polymer is a metal crosslinked styrene/acrylic polymer that can be formulated into a concentrate polish to offer high initial gloss, rapid gloss build and long term wear properties. This makes it a natural choice for compounding floor polishes that offer the best balance of properties.

Performance Characteristics

As with all Dow floor polish polymers, RHOPLEX™ 3830 Polymer shares a number of common performance characteristics.

The suggested polish formulations made with RHOPLEX™ 3830 Polymer meet the industry slip resistance standard as tested by the ASTM D-2047 Standard Test Method. These finishes can be formulated to a range of solid levels from 15 to 25 percent. RHOPLEX™ 3830 Polymer offers for the manufacture of polishes that can be applied at floor temperatures of 50°F (10°C) and above.

RHOPLEX™ 3830 Polymer Formulation N-30-3 (20%)

Starting point formulation N-30-3 balances lay down gloss and wear to offer a very good day-to-day appearance. N-30-3 shows good wear under a variety of maintenance systems.

Material in Proper Order of Addition	Percent by Weight	Lb/100 U.S. Gal	Gal/100 U.S. Gal
Water	46.16	385.31	47.33
KATHON™ CG/ICP Preservative	0.04	0.34	0.04
Capstone FS-65 Fluorosurfactant[1]	0.04	0.34	0.04
CARBITOL™ Solvent - Low Gravity	4.01	33.13	4.16
UCAR™ Filmer IBT Coalescent	1.20	9.49	1.27
Tri(butoxyethyl) Phosphate Plasticizer	1.20	10.01	1.20
RHOPLEX™ 3830 Polymer (38%)	41.43	356.30	39.88
A-C 540N Ethylene-acrylic Copolymer (30%)[2]	4.72	38.47	4.84
A-C 325N Polypropylene Polymer (35%)[3]	1.18	9.82	1.19
Defoamers[4]	0.02	0.17	0.02
Totals	**100.00**	**843.36**	**100.00**

Formulation Constants	Theoretical Non-volatile Solids	20%
	Theoretical Density, Lb/U.S. Gal	~8.6
	Polymer/ASE/Wax Ratio	90/0/10

1. Recommended Wetting Agent: Capstone FS-65
2. Commercial Trade Names: Michem Emulsion 44730 (30%) and BYK Wax emulsion Aquacer 8840 (40%)
3. Commercial Trade Names: Michem Emulsion 93235 (35%) and BYK Wax emulsion Aquacer 8959 (35%)
4. Recommended Defoamer: DEE FO PI40 Münzing, info@munzing.us

RHOPLEX™ 3830 Polymer Formulation C-30-4 (35%)

RHOPLEX™ 3830 Polymer, based formulation, C-30-4, is a starting point concentrate formulation supplied at 35% solids content. This formulation can be diluted down to produce formulations that have a range of solids of 15–25%.

Material in Proper Order of Addition	Percent by Weight	Lb/100 U.S. Gal	Gal/100 U.S. Gal
Water	2.26	19.44	2.34
RHOPLEX™ 3830 Polymer (38%)	61.16	526.18	60.50
Premix Together then Slowly Add to the Polymer and Water Mixture			
Solution ASR (30%)[1]	10.89	93.69	10.66
Capstone FS-65 Fluorosurfactant[2]	0.06	0.36	0.06
TERGITOL™ 15-S-40 Surfactant	0.35	3.01	0.34
CARBITOL™ Solvent - Low Gravity	8.71	74.93	9.07
Benzoflex 131	1.14	9.81	1.12
Tri(butoxyethyl) Phosphate Plasticizer	2.17	18.67	2.20
KATHON™ CG/ICP Preservative	0.04	0.34	0.04
Premix Subtotal	23.36	200.81	23.49
Then Add			
A-C 325N Polypropylene Polymer (35%)[3]	7.03	60.48	7.29
Epolene E43N Polypropylene Polymer (40%)[4]	6.15	52.91	6.35
Defoamer[5]	0.04	0.34	0.04
Totals	**100.00**	**860.16**	**100.00**

Formulation Constants	Theoretical Non-volatile Solids	35%
	Theoretical Density, Lb/U.S. Gal	~8.6
	Polymer/ASE/Wax Ratio	75/10/15

1. Alternative ASRs: Michem Dispersion MD-91530 (30%) and Chemrez 30 (30%)
2. Recommended Wetting Agent: Capstone FS-65
3. Commercial Trade Names: Michem Emulsion 93235 (35%) and BYK Wax emulsion Aquacer 8059 (35%)
4. Commercial Trade Names: Michem Emulsion 94340 (40%) and BYK Wax emulsion Aquacer 8940 (40%)
5. Recommended Defoamer: DEE FO PI40 Münzing, info@munzing.us

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 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.

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, dow.com or consult your local Dow representative.

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. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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