

# Barentz.



HI&I

## Floor Care Ingredients



# Better Floor Care Ingredient Solutions

Barentz markets an extensive line of products designed for use in floor finishes for wood, polished concrete, VCT and other flooring types. Enhance durability, shine, scuff resistance and more while choosing from high cost-efficient, eco-friendly and premium ingredients. From polymers to waxes, our technical team can help you build the right product for your market!

## Emulsion Polymers from Dow Chemical

Barentz offers a wide range of polymers from the Dow Chemical Corporation. Dow polymers offer high quality products that can improve resistance, buffability and shine to your products. Choose from Duragreen™ zinc-free products if you are looking for a more environmentally friendly option, Duraplus™ products for low-maintenance floor finishes or Rhoplex® product line for high-maintenance floor finishes.

## Wax Emulsions from Michelman

Michem® Emulsions and Michem® Dispersions enhance floor finishes by increasing gloss, durability, slip resistance, abrasion & scratch resistance and more.

## Polyurethanes from Chase

Improve scratch resistance, heat fluctuations, high humidity tolerance, & chemical resistance with solvent-free polyurethanes from Chase.

## TBEP Plasticizer from ICL

Excellent leveling aid and aids in strong, long-lasting film formation.





### **Alternative Plasticizers from Eastman**

For resilient flooring, try TXIB or the Benzoflex™ line of plasticizers from Eastman. These products provide excellent film formation and resistance.

### **Preservatives from Arxada**

Provide fast-acting, broad-spectrum protection from contamination with a wide variety of preservatives. By adding these preservatives to your product, you can increase longevity and shelf-life.

### **Defoamers from Elkem**

Effectively control foam at concentrations as low as 10 ppm solids. Barentz offers Elkem defoamers that are effective even at elevated temperatures under pressure at wide-ranging pH. Alkaline conditions? Not a problem.



**barentz-na.com** **Always a better solution.**

**Barentz NA HI&I** • 6531 Park of Commerce Boulevard, Suite 170 • Boca Raton, Florida 33487  
United States • **T** (888) 803-8270 • **E** [info.hii@barentz.us](mailto:info.hii@barentz.us)

## Floor Finish Products from The Dow Chemical Company

Product	Features	Maintenance Procedure	Metal	APE-Free	Solids%	pH	Density (lbs/gal)	Viscosity (cps)	Specific Gravity
<b>Floor Finish Polymers</b>									
Duragreen™ MF-1	Metal Free, Excellent Durability. GreenSeal and DFE certified.	Low - medium	None	Yes	40.0 - 41.0	7.0 - 8.0	8.8	<100	1.05
Rhoplex® B-924	Excellent Durability, Good Gloss. All acrylic.	Low - medium	Zn	Yes	37.5 - 38.5	7.6 - 8.3	8.9	<100	1.07
Duragreen™ 4373	Zinc Free Polymer, with an excellent gloss, very good durability and burnish response. GreenSeal and DfE certification pending	Low - medium	Ca	Yes	37.5 - 38.5	7.0 - 8.0	8.8	<100	1.05
Duraplus™ 2	Outstanding Durability, Excellent Gloss.	Low - medium	K, Zn	Yes	37.5 - 38.5	7.9 - 8.9	8.9	<100	1.07
Duraplus™ 3	Excellent Durability, Excellent Gloss.	Low - medium	K, Zn	Yes	37.5 - 38.5	8.0 - 9.0	8.8	<100	1.07
Rhoplex® 2483	Very Good Durability, Very Good Gloss, Low Cost	Medium - high	Zn	No	37.5 - 38.5	8.6 - 9.4	8.9	<100	1.07
Rhoplex® 3479	Very Good Durability, Excellent Gloss, Low Cost	Medium - high	Zn	Yes	37.5 - 38.5	7.5 - 8.5	8.8	<100	1.06
Rhoplex® 3829	Optically Brightened; Very Good Durability, Excellent Gloss.	Medium - high	Zn	Yes	37.5 - 38.5	7.5 - 8.5	8.8	<100	1.06
Rhoplex® 3830	Very Good Durability, Very Good Gloss. Can be formulation as a concentrate.	Medium - high	Zn	Yes	37.5 - 38.5	8.3 - 8.8	8.8	<100	1.05
Rhoplex® 4336	Optically brightened; Outstanding Ultra High Speed Burnish Response	High	Zn	Yes	37.5 - 38.5	8.6 - 9.6	8.7	<100	1.04
<b>Floor Finish Sealers</b>									
Rhoplex® 2133	Outstanding Adhesion, Very Good Chemical Resistance	N/A	None	No	41.0 - 42.0	7.0 - 7.8	8.6	<500	1.03
Rhoplex® CS-4000	Excellent Water-Blushing Resistance	N/A	None	No	47.5 - 48.5	8.2 - 8.8	8.8	<800	1.06
Rhoplex® NTS-2923	Excellent Stain Resistance	N/A	None	Yes	37.5 - 39.0	7.0 - 7.8	8.8	<100	1.05
Rhoplex® WL-91	Excellent Chemical Resistance, High Gloss, Low Cost	N/A	None	No	41.0 - 42.0	7.1 - 8.2	8.6	200 - 1000	1.03
<b>Wood Finish Polymers</b>									
Duraplus™ C-3668	Water-Borne, Very Good Durability & Gloss	Medium	None	Yes	37.5 - 38.5	8.0 - 9.5	8.7	<100	1.04
<b>Alkali Soluble Resins</b>									
Rhoplex® 1531C	Outstanding Leveling, Colorless, High Gloss, All Acrylic	N/A	None	Yes	38.0 - 39.0	4.8 - 6.0	8.9	<100	1.06



## Floor Polish Recommendations from The Dow Chemical Company

Facility	Typical Maintenance System	Key Product Feature	Recommended Polymer	Features
Low Maintenance				
Managed Care Facilities, Schools, Offices, Small Locations or Rooms	Mop/Scrub/Recoat; Infrequent Spray Buffing or Burnishing (1-2 times/week)	Best durability	Duraplus® 2	Best for durability; benchmark for mark and scuff resistance; excellent gloss and removability; low ammonia odor and foam.
		All acrylic	Rhoplex® B-924	Excellent mark and scuff resistance; Very good gloss. All Acrylic Polymers
		Best gloss	Duraplua® 3	Best for gloss retention; excellent durability; low ammonia odor and foam. Can be formulated to comply with 2010 CARB 310 VOC regulations
		Durable & metal free	Duragreen® MF-1	Metal Free Polymer, Excellent Durability; benchmark for detergent and oil resistance. GreenSeal and DFE certified.
Medium Maintenance				
Grocery Stores, Shopping Malls, Hospitals, Managed Care Facilities, Airports, Universities, Schools, Office Buildings, Lobbies, Small Retail Stores	Spray Buffing or High Speed Burnishing (2-4 times/week)	Best durability	Duraplus® 3	Best for gloss retention; excellent durability; low ammonia odor and foam. Can be formulated to comply with 2010 CARB 310 VOC regulations
		Zinc Free	Duragreen® 4373	High initial gloss, very good durability, outstanding soil resistance and removability. Ability to comply with leading green label requirements.
		Ultra high solids formulations	Duraplus Advantage®	Excellent Durability, Very Good Gloss, Formulated up to 30% solids for low to high maintenance. Can be formulated to comply with 2010 CARB 310 VOC regulations.
		Optically Brightened	Rhoplex® 3829	Excellent lay-down gloss with very good durability; very good buff and burnish response; low foam.
		Best Value	Rhoplex® 3479	Excellent lay-down gloss with very good durability; very good buff and burnish response; low foam.
High Maintenance				
Supermarkets, Large Non-food Retail, Office Buildings, Lobbies, etc.	High Speed or Ultra High Speed Burnishing (4-7 times/week)	“Wet Look” Gloss	Rhoplex® 4336	Outstanding ultra high-speed burnish response; “wet-look” gloss; low ammonia odor; excellent foam control. Optically Brightened

## Floor Sealer Recommendations by Substrate from The Dow Chemical Company

Floor Substrate		Product/Formulation		Features
Vinyl Tile	Sealer Finish	Low Cost	Rhoplex® 1421	Economically priced; excellent protective properties; good adhesion.
		High Durability	Duraplus® 3	Premium product with excellent durability and gloss; excellent adhesion, buffing and burnishing response.
	Sealer Under Coat	Low Cost / Removable	Rhoplex® 1421	Economically priced; excellent protective properties; good adhesion.
		High Gloss / Removable	Duraplus® 3	Premium product with excellent durability and gloss; excellent adhesion, buffing and burnishing response.
		Chemical Resistant / Selectively Removable	Rhoplex® 2133	Outstanding adhesion; very good chemical resistance; formulations can be pigmented zinc free.
		Stain Resistant / Removable	Rhoplex® NTS-2923	Excellent protective properties as a resilient tile sealer, particularly against staining; zinc-free.
Non-resilient Tile	Terazzo	Low Cost	Rhoplex® 1421	Economically priced; excellent protective properties; good adhesion.
		High Durability	Duraplus® 3	Premium product with excellent durability and gloss; excellent adhesion, buffing and burnishing response.
	Concrete	Exterior	Rhoplex® CS-4000	Excellent water-blushing resistance; formulations can be pigmented zinc free.
		Interior	Rhoplex® 2133	Outstanding adhesion; very good chemical resistance; formulations can be pigmented zinc free.
		Interior	Rhoplex® CS-4000	Excellent water-blushing resistance; formulations can be pigmented zinc free.

## Michem® Emulsions, Michem® Dispersions & Michem® Lube from Michelman

Product	Description	%NV	pH	Abrasion Resistance	Black Heel Resistance	Block Resistance	Durability	Gloss	Mar Resistance	Scratch Resistance	Slip Resistance	Water Resistance	Buffability	Hardness
MD91530	Acrylic resin dispersion	24.0 - 26.0	8.2 - 9.7					x	x				x	
ME62330	Anionic paraffin/polyethylene emulsion	29.5 - 30.5	9.4 - 10.4									x		
ME71235	Anionic paraffin/polyethylene co-emulsion	35.0 - 36.0	9.0 - 11.0			x						x		
ME67235	High density polyethylene emulsion	34.5 - 35.5	9.7 - 11.0	x		x			x		x		x	x
ME94340	Nonionic polypropylene emulsion	39.5 - 40.5	7.5 - 9.0	x		x	x			x	x			
ME95440	Nonionic copolymer emulsion	39.5 - 40.5	9.5 - 10.5		x						x		x	
ML126	Anionic polyethylene emulsion	24.5 - 25.5	8.7 - 9.7			x						x		
ML156 PFP	Nonionic carnauba wax emulsion	24.5 - 25.5	4.5 - 7.5			x				x				
ML160 PFP	Anionic carnauba wax emulsion	24.5 - 25.5	4.0 - 7.5			x			x	x			x	



## Polyurethanes from Chase

### Solvent-Free Polyurethanes

Product	Description	Viscosity	% Solids	Specific Gravity	Wt/Gallon	pH	VOC (g/L)	Heat Age (125°F 28 days)	Freeze-Thaw (0°F 5 cycles)	Sward Hardness	Gloss @ 60%
SF18™	Solvent-free, aliphatic, self-cross-linking	25 - 400 cps	34 - 36%	1.06 ± 0.01	8.75 ± 0.2	7.0 - 8.5	< 50	Pass*	Pass	25	90
SF27™	Solvent-free, aliphatic polyester dispersion	25 - 400 cps	34 - 36%	1.06 ± 0.01	8.75 ± 0.2	7.0 - 8.5	< 50			27	
SF5000™	Solvent Free, Water Based Hydroxyl Functional Resin	10 - 200	37 - 39%		8.8	7.0 - 8.5	<20	Pass*	Pass	45	85

Wood Coatings						Plastic Coatings				Specialty Coatings		
Product	DIY Varnish	Professional Floor Finishes	Sports Flooring	Stains & Sealers	Wood Components	Vinyl Rigid	Vinyl Flexible	Automotive Components	Floor Polish	Adhesives & Sealants	Flexible Film Adhesives	Binders
SF18™	x	x	x	x	x	x	x	x	x	x	x	x
SF27™				x	x	x	x	x	x		x	
SF5000™		x	x		x				x			

### Moisture Cure Polyurethanes

Product	Description	Viscosity	% Solids	VOC lbs/gal (g/l)	% NCO	Sward Hardness	Tensile psi	Elongation	Solvent
MC40P™	Aromatic, hard coating for wood & concrete	70 - 120 cps	39 - 41%	4.86 (585)	2.7 - 3.0	38	5,000	85%	Xylol/PM acetate
MC53-1™	Aromatic, hard coating for wood & concrete, <350 g/l VOC	70 - 130 cps	40 - 43%	2.48 (298)	2.8 - 3.7	40	4,500	80%	Exempt/PM Acetate
MC75™	Aromatic, hard coating for wood & concrete	60 - 125 cps	39 - 41%	4.81 (576)	2.5 - 3.1	38	5,000	85%	Xylol

Wood Coatings				Specialty Applications	
Product	Professional Floor Finishes	Sports Flooring	Wood Components	Binders	
MC40P™	x	x	x		
MC53-1™	x	x	x		
MC75™	x	x	x		





## Floor Care Plasticizers

Product	Specific Gravity @ 20°C/20°C	Viscosity mPa.s @ 25°C	Refractive Index @ 25°C	Freezing Point	Solubility in Water @ 25°C	Odor	APHA Color	Vapor Pressure torr @ 20°C	Molecular Weight	Flash Point
Phosflex TBEP	1.02	12					<75			
Benzoflex® 2088	1.16	71	1.54	<16°C	Slightly soluble	Mild	25 - 40	<0.00001	332 (Theoretical)	202°C (Setaflash Closed Cup)
Benzoflex® 131	0.95	8	1.49	<-25°C		Mild	10 - 40	<0.001	262 (Typical)	167°C (Setaflash Closed Cup)
TXIB	0.942 - 0.948	9 cP @ 25°C (Brookfield)	1.43	-70°C	0.42 g/l @ 20°C				286.4	143°C (Cleveland Open Cup)

## Preservatives from Arxada

Product	Chemistry	Description	Effective pH	Use	Active Wt%	CAS No.	Typical Use Levels (wt%)	Cleaners			Waxes & Polishes
								Low pH	Neutral pH	High pH	
Mergal™ 530	2,2-Dibromo-3-nitropropionamide	Clear colorless to amber liquid Quick-kill, fast-dissipating biocide	25 - 4.5	Biocide	20	10222-01-2	varies		x		
TroyGuard™ BC11	Benzisothiazolinone (BIT) Chloromethylisothiazolinone (CMIT) Methylisothiazolinone (MIT)	White to off-white liquid dispersion Fast acting with long-term protection	3 - 12	Antibacterial	10.1 0.50 0.16	2634-33-5; 26172-55-4; 2682-20-4	0.05 - 0.20		x	x	x
TroyGuard™ B20G	Benzisothiazolinone (BIT)	Clear colorless glycol solution Stable, long-term protection	3 - 12	Antibacterial & Antifungal	19.18	2634-33-5	0.1 - 0.2			x	x
TroyGuard™ B20F	Benzisothiazolinone (BIT)	White to off-white aqueous dispersion Stable, long-term protection CleanGredients™ approved	3 - 12	Antibacterial & Antifungal	19.18	2634-33-5	0.1 - 0.2			x	x
TroyGuard™ B20W	Benzisothiazolinone (BIT)	White to off-white aqueous dispersion Stable, long-term protection	3 - 12	Antibacterial & Antifungal	19.18	2634-33-5	0.1 - 0.2			x	x
TroyGuard™ CM1.5	Chloromethylisothiazolinone (CMIT) Methylisothiazolinone (MIT)			Antibacterial & Antifungal	1.14 0.36	26172-55-4; 2682-20-4	0.05 - 0.10	x	x		x

## Defoamers from Elkem

Product	Appearance	Actives, %	Emulsifier Type	pH	Diluents	Viscosity, cps
Silcolapse® 621	Milky white	30	Non-ionic	7.0	Water	1,100
Silcolapse® 721	Milky white	10	Non-ionic	7.0	Water	900