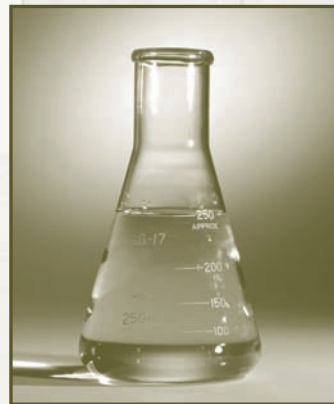




# MAPLE FLOORING MANUFACTURERS ASSOCIATION

## *Athletic Flooring Sealer and Finish Specifications and Conformance List — #27*

*Effective 1/01/09*



111 Deer Lake Road, Suite 100  
Deerfield, IL 60015 USA  
888-480-9138  
FAX: 847-480-9282  
E-mail: [mfma@maplefloor.org](mailto:mfma@maplefloor.org)  
[www.maplefloor.org](http://www.maplefloor.org)

*For the most up-to-date list available go to [www.maplefloor.org](http://www.maplefloor.org)*

**GROUP 1  
SEALERS**

*Provides good penetration with only a slight surface film. These materials are intended as an economical first coating.*

URETHANE OIL TYPE SEALERS

**#326 Gold Medalist Wood Seal**

Hillyard Inc.  
302 N. 4th Street  
St. Joseph, MO 64502  
800-365-1555

**Coliseum 100**

Buckeye International, Inc.  
2700 Wagner Place  
Maryland Heights, MO 63043  
800-321-2583

**OMU Wood Sealer**

Essential Industries  
28391 Essential Road  
Merton, WI 53056-0012  
262-538-1122

**Poloplaz Fast Dry Sanding Sealer**

Poloplaz, Inc.  
1 Paradise Park Road  
Jacksonville, AR 72076  
800-421-7319

**Poloplaz World Class Court & Gym Sealer**

National Coatings Company  
1 Paradise Park Road  
Jacksonville, AR 72076  
800-421-7319

**Rapid Seal, Dual Purpose Sealer, 1Y.519**

Complementary Coatings Corporation  
4701 O'Donnell Street  
Baltimore, MD 21224  
410-883-4193

**Trophy Wood Seal**

Hillyard Inc.  
302 N. Fourth Street  
St. Joseph, MO 64502  
800-365-1555

**WP-4.1 Fast Dry 350 Poly Sealer**

The Sika Corporation  
201 Polito Avenue  
Lyndhurst, NJ 07071  
800-933-7452

**GROUP 2  
LOW GLOSS (SEMI GLOSS  
& SATIN) OIL BASED  
(SURFACE) FINISHES**

*No products currently listed.*

**GROUP 3  
GYMNASIUM TYPE  
(SURFACE) FINISHES**

*Provides little penetration and good surface film build-up. These materials are intended for maximum service under heavy traffic.*

URETHANE OIL TYPE FINISHES

**#271 – Fast Dry 450 II Gym Finish**

Hillyard Inc.  
302 N. Fourth Street  
St. Joseph, MO 64502  
800-365-1555

**350 Gym Finish**

Hillyard Inc.  
302 N. Fourth Street  
St. Joseph, MO 64502  
800-365-1555

**40% Gym Finish**

Essential Industries  
28391 Essential Road  
Merton, WI 53056-0012  
262-538-1122

**450 Gym Finish**

Hillyard Inc.  
302 N. Fourth Street  
St. Joseph, MO 64502  
800-365-1555

**BETCO 1 COAT, High Gloss Urethane Finish**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**Big Ten**

Products Chemical Company  
6400 Herman Avenue  
Cleveland, OH 44102  
216-281-1155

**Bona Sport® AllCourt**

BonaKemi USA, Inc.  
2550 S. Parker Road  
Suite 600  
Aurora, CO 80014  
800-872-5515

**Bona Sport® Sport Poly**

BonaKemi USA, Inc.  
2550 S. Parker Road  
Suite 600  
Aurora, CO 80014  
800-872-5515

**Classic World WCPGVOG**

Garco Clear Finishes  
1999 Elizabeth Street  
No. Brunswick, NJ 08902  
800-432-4333

**Coliseum 350**

Buckeye International, Inc.  
2700 Wagner Place  
Maryland Heights, MO 63043  
800-321-2583

**Coliseum 450**

Buckeye International, Inc.  
2700 Wagner Place  
Maryland Heights, MO 63043  
800-321-2583

**Excelsior Oil Modified Urethane 197-1040 (Clear Gloss)**

Harrison Paint Company  
1329 Harrison Avenue SW  
Canton, OH 44706  
330-455-5125

**Fast Dry 450 II Gym Finish**

Hillyard Inc.  
302 N. Fourth Street  
St. Joseph, MO 64502  
800-365-1555

**Garco Gym Finish**

Garco Clear Finishes  
1999 Elizabeth Street  
No. Brunswick, NJ 08902  
800-432-4333

**Harco Gymcoat 8900 VOC**

Harco Chemical Coatings  
Division of National Paint Company  
1999 Elizabeth Street  
No. Brunswick, NH 08902  
800-445-3777

**Harco Polyurethane 5400 VOC**

Harco Chemical Coatings  
Division of National Paint Company  
1999 Elizabeth Street  
No. Brunswick, NH 08902  
800-445-3777

**Harco Polyurethane 8500 VOC**

Harco Chemical Coatings  
Division of National Paint Company  
1999 Elizabeth Street  
No. Brunswick, NJ 08902  
800-445-3777

**Jon-Wood® Polyurethane Wood Finish**

Johnson Diversey, Inc.  
P.O. Box 902  
Sturtevant, WI 53177-0902  
262-631-4001

**Lenmar Gloss Polyurethane, 1Y.555**

Complementary Coatings Corporation  
4701 O'Donnell Street  
Baltimore, MD 21224  
410-883-4193

**MARC Polyethylene Gym Finish**

Mid-American Research  
Chemical Corporation  
P.O. Box 927  
Columbus, NE 68602-0927  
800-228-8508

**Marathane**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**MARTHANE 45**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**Miathane Polyurethane**

Harco Chemical Coatings  
Division of National Paint Company  
1999 Elizabeth Street  
No. Brunswick, NJ 08902  
800-445-3777

**Poloplaz World Class Court & Gym Finish**

Poloplaz, Inc.  
1 Paradise Park Road  
Jacksonville, AR 72076  
800-421-7319

**Poly-U-Var**

Sampson Coatings Inc.  
1900 Ellen Road  
Richmond, VA 23230  
804804-359-5011

**ProCourt 40% OMU Finish**

Pro-Link  
510 Chapman Street  
Canton, MA 02021  
800-74-LINKS

**ProCourt 47% OMU Finish**

Pro-Link  
510 Chapman Street  
Canton, MA 02021  
800-74-LINKS

**Superior Court – O.M.U Gym Finish**

Daley International  
4100 W. 76th Street  
Chicago, IL 60652  
773-284-6565

**Superior Court – O.M.U Wood Finish**

Daley International  
4100 W. 76th Street  
Chicago, IL 60652  
773-284-6565

**Tough Guy OMU 45**

W.W. Grainger Inc.  
100 Grainger Avenue  
Lake Forest, IL 60045

**Trophy Gym Finish**

Hillyard Inc.  
302 N. Fourth Street  
St. Joseph, MO 64502  
800-365-1555

**Trophy Plus Gym Finish**

Hillyard Inc.  
302 N. Fourth Street  
St. Joseph, MO 64502  
800-365 1555

**WP-8 450 VOC Finish**

The Sika Corporation  
201 Polito Avenue  
Lyndhurst, NJ 07071  
800-933-7452

**WP-8.1 Sports Floor 350 OMU Finish**

The Sika Corporation  
201 Polito Avenue  
Lyndhurst, NJ 07071  
800-933-7452

**GROUP 4  
LOW GLOSS (SEMI GLOSS  
& SATIN) WATER BASED  
FINISHES**

*These products yield low gloss characteristics with multiple coats.*

*NOTE: The use of water based finishes has occasionally produced a sidebonding effect which may result in localized excessive cracks between the boards. The MFMA recommends that you consult with your MFMA flooring contractor and finish manufacturer to obtain their procedures for sealing and finishing a raw maple strip floor with water-based products.*

*No products currently listed.*

**GROUP 5  
WATER BASED FINISHES**

*Nonflammable and low odor. Provides adequate penetration and surface film build-up.*

*NOTE: The use of water based finishes has occasionally produced a sidebonding effect which may result in localized excessive cracks between the boards. The MFMA recommends that you consult with your MFMA flooring contractor and finish manufacturer to obtain their procedures for sealing and finishing a raw maple strip floor with water-based products.*

**1907 Waterborne Urethane**

Hillyard Inc.  
302 N. Fourth Street  
St. Joseph, MO 64502  
800-365-1555

**Arena 200**

Buckeye International, Inc.  
2700 Wagner Place  
Maryland Heights, MO 63043  
800-321-2583

**Aquacoat**

Daley International  
4100 W. 76th Street  
Chicago, IL 60652  
773-284-6565

**Aqua Coat – Crosslinked Water Based Wood Coating**

Daley International  
4100 W. 76th Street  
Chicago, IL 60652  
773-284-6565

**AquaSport Wood Floor Finish**

Spartan Chemical Company, Inc.  
1110 Spartan Drive  
Maumee, OH 43537  
800-537-8990

**AquaSport Two-Part Wood Floor Finish**

Spartan Chemical Company, Inc.  
1110 Spartan Drive  
Maumee, OH 43537  
800-537-8990

**Arena 300**

Buckeye International, Inc.  
2700 Wagner Place  
Maryland Heights, MO 63043  
800-321-2583

**Bona Sport® Super Sport™**

BonaKemi USA, Inc.  
2550 S. Parker Road  
Suite 600  
Aurora, CO 80014  
800-872-5515

**Court Justice – Two Part Water Based 100% Aliphatic Urethane**

Daley International  
4100 W. 76th Street  
Chicago, IL 60652  
773-284-6565

**Court Security – Oxygen Crosslinked Water Based O.M.U. Finish**

Daley International  
4100 W. 76th Street  
Chicago, IL 60652  
773-284-6565

**Dura Seal® X-Terra®**

Sherwin-Williams Company  
Wood Care Division  
10 Mountainview Road  
Upper Saddle River, NJ 07458  
201-818-7620

**ECBA**

Basic Coatings Inc.  
1001 Brown Ave.  
Toledo, OH 43607  
800-462-3826

**ECH20 1K W/B Floor Finish, 1YB.108**

Complementary Coatings Corporation  
4701 O'Donnell Street  
Baltimore, MD 21224  
410-883-4193

**ECH20 2K W/B Floor Finish, 1YB.08**

Complementary Coatings Corporation  
4701 O'Donnell Street  
Baltimore, MD 21224  
410-883-4193

**Emulsion**

Basic Coatings Inc.  
1001 Brown Ave.  
Toledo, OH 43607  
800-462-3826

**Emulsion**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**EMULSION, Gloss, Advanced Oil & Water Wood Floor Finish**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**Endurance 275 Wood Floor Finish**

W.W. Grainger Inc.  
100 Grainger Avenue  
Lake Forest, IL 60045

**EZ Gym Coat n Seal**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**Fathom™**

Buckeye International, Inc.  
2700 Wagner Place  
Maryland Heights, MO 63043  
800-321-2583

**HP Gym Coat**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**Lay Up Wood Coating**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**LP Gym Coat**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**Marc 289 Full Court Finish**

Mid-American Research  
Chemical Corp  
Columbus, NE 68602-0927  
800-228-8508

**Print Time WF**

Misco Products Corporation  
1048 Stinson Drive  
Reading, PA 19605  
800-548-4568

**ProCourt Oxygen XLink Finish**

Pro-Link  
510 Chapman Street  
Canton, MA 02021  
800-74-LINKS

**ProCourt XLink 25 Finish**

Pro-Link  
510 Chapman Street  
Canton, MA 02021  
800-74-LINKS

**ProCourt XLink Mix Finish**

Pro-Link  
510 Chapman Street  
Canton, MA 02021  
781-828-9550

**Rival**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**Self Seal**

Rudd Company, Inc. / PPI  
1141 NW 50th Street  
Seattle, WA 98107-5120  
800-444-7833

**Sport Kote**

Essential Industries, Inc.  
28391 Essential Road  
Merton, WI 53056  
262-538-1122

**SS Gym Coat**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**SS 275 Gym Coat**

BETCO Corporation  
1001 Brown Avenue  
Toledo, OH 43607  
800-462-3826

**StreetShoe 275 Waterbased Wood Floor Finish – Gloss**

Basic Coatings, Inc.  
1001 Brown Avenue  
Toledo, OH 43607-0127  
800-462-3826

**Waterborne Clear Wood Finish – Gloss 196-3648**

Harrison Paint Company  
1329 Harrison Avenue SW  
Canton, OH 44706  
330-455-5125

**Waterthane 701**

Johnson Diversey, Inc.  
P.O. Box 902  
Sturtevant, WI 53177-0902  
262-631-4001

**Waterthane 901**

Magee™  
1326 Willow Road  
Sturtevant, WI 53177  
800-786-2433

**WP-20 Waterbourne Oil-Modified Urethane**

The Sika Corporation  
201 Polito Avenue  
Lyndhurst, NJ 07071  
800-933-7452

# MAPLE FLOORING MANUFACTURERS ASSOCIATION, INC.

## Specifications For:

## GYMNASIUM FINISHES AND SEALERS FOR MAPLE, BEECH AND BIRCH FLOORS

### INTRODUCTION

The Maple Flooring Manufacturers Association publishes this specification and lists products that conform to it for the sole purpose of providing guidance in efforts to achieve the highest protection and most enduring beauty in wood floors. The Association's activity in this respect involves no responsibility on its part for product performance or casualty.

### A. General Requirements

All materials submitted for approval must meet the following general requirements, regardless of chemical composition. All materials must meet the specific requirements of the appropriate category. The categories, or groups, are based on product use such as, sealer, heavy-duty finish and surface finish. There are also two separate categories for moisture-cured and water-based finishes.

1. All materials must be suitable for application to new maple, beech and birch flooring or to such in-service flooring which has been suitably prepared.
2. The material shall be reasonably free from toxicity and objectionable odors. Container labeling must be in accordance with federal regulations governing the handling of hazardous materials.
3. All materials shall meet local requirements with respect to point of manufacture and market to insure the control of photo-chemically reactive aromatics. The submitter shall supply information showing compliance by listing their solvent systems on the product label.
4. The submitter is required to certify, on a provided form, the chemical category of the product and for which group it is to be evaluated.
5. In the case of urethane resin based products, the submitter is required to provide the percentage of free nitrogen compounds based on solid's content.
6. The submitter must be the sole manufacturer of the product that is to be evaluated for compliance.

### B. Group Requirements

**Group 1. Sealers**—This group shall include all materials of lower solid's content and viscosity that will also provide adequate surface penetration and slight surface build. Sealers shall provide an economical first coat.

**Group 2. Low Gloss (Semi Gloss & Satin) Oil Based Surface Finishes**—These products should yield low gloss characteristics with multiple coats.

**Group 3. Surface Finishes**—These materials shall possess a higher solid's content and viscosity that will provide little penetration and good surface build. These products should yield high gloss characteristics with multiple coats.

**Group 4. Low Gloss (Semi Gloss & Satin) Water Based Finishes**—These products must meet additional specific requirements that are not applicable to groups 1 through 3. These products should yield low gloss characteristics with multiple coats.

**Group 5. Water-Based Finishes**—These products have no significant amount solvent within their chemical composition. These products must meet additional specific requirements that are not applicable to groups 1 through 4.

### C. Specific Requirements

1. **Non-Volatile Content**—Group 1, 25%–45%; Group 2, >30%; Group 3, 40%–65%; Group 4, >30%; Group 5 (with catalyst), > 20%
2. **Viscosity (Gardner-Holt)**—Group 1, < A; Group 2, < A; Group 3, ≥ A-3; Group 4, A-C; Group 5 (with catalyst), < C
3. **Flash Point**—Groups 1 through 3, ≥ 38°C (100°F); Groups 4, and 5, None

4. **Gloss**—Groups 2 & 4 – Semi 35–55, Satin 25–35, Groups 3 and 5, 90. Test is not applicable to Group 1.
5. **Color**—(Gardner Color Standard) Groups 1 through 3 shall not be darker than Gardner 12. This requirement is not applicable to Groups 4 and 5.
6. **Dry Film Color**—Upon comparison, an oven-aged panel should not have darkened when compared to an unexposed panel.
7. **Package Stability**—All groups shall be free from sediment and suspended solid matter (Group 1 sanding sealers need not meet this requirement). All groups shall be resistant to skinning and show no color change after aging.
8. **Dry Time**—Group 1 materials shall dry hard for re-coat in less than seven hours. Groups 2, 3 and 4 shall set to touch in not less than one hour nor more than three hours. They shall dry hard for re-coat or service in less than seven hours without developing tackiness. Groups 1 through 4 shall spread easily 15 minutes after coating. Group 5 shall set to touch in no more than two hours and dry hard in less than seven hours. All groups shall show no evidence of tackiness. Drying properties must remain with the aforementioned ranges after storage.
9. **Sanding Properties**—Group 1 materials shall possess good sanding properties and not gum or roll when subjected to sanding. Sanding requirements are not applicable to the other groups.
10. **Hardness (Sward Hardness Rocker)**—Group 1 is tested 48 hours, and Groups 2 through 5 are tested seven days after application. All groups must exhibit a minimum hardness of 30.
11. **Abrasion Resistance**—Sand Coefficient—Group 1, ≥ 80; Groups 2 and 3, ≥ 120; Groups 4 and 5, ≥ 160.—James Machine Weight loss shall not exceed 1%.—Black Heel Mark Resistance—All products must have a minimum rating of excellent.
12. **Flexibility**—All groups must pass the 1/8" Mandrel test. No cracking shall occur between points 1/4" from each side of the panel.
13. **Adhesion**—All groups shall provide good adhesion properties when re-coated after 24 hours. Group 1 shall also provide good adhesion when coated with a specific top coat other than itself.
14. **Maintenance**—All products must be easily removed by using conventional physical or chemical methods. Groups 2 through 5 shall be capable of blending with patched worn areas.
15. **Stain Resistance**—All groups shall show no whitening, no more than very slight dulling and no other visible defects when exposed to the following staining agents: Distilled water, light duty, all-purpose cleaner (Spic & Span®, 1% solution in water), vegetable oil.
16. **Alcohol, Naphtha, Beer and Coca-Cola® Resistance**—All Groups shall show no evidence of damage, dulling or whitening by the introduction of a 50% alcohol/water solution, naphtha, beer and Coca-Cola®.
17. **Perspiration Resistance**—All Groups shall exhibit no discoloration or loss of adhesion by the introduction of synthetic perspiration.
18. **Coefficient of Friction**—All groups must achieve a minimum Coefficient of Friction reading of 0.50.

### Additional Tests Pertaining to Groups 4 and 5 Products Only

19. **Freeze—Thaw Resistance**—Products shall not exhibit any separation, stratification or coagulation when exposed to freezing temperatures and then allowed to thaw.
20. **Film Forming Temperature**—Products shall form a film at a temperature ≤ 10°C (50°F).
21. **Leveling**—Products shall level well and exhibit no excessive streaking, bubbling, puddling or fish-eyeing.

### For specific test procedures or to submit a product for testing contact:

MFMA

111 Deer Lake Road, Suite 100 • Deerfield, IL 60015

888-480-9138 • FAX: 847-480-9282

E-mail: [mfma@maplefloor.org](mailto:mfma@maplefloor.org) • [www.maplefloor.org](http://www.maplefloor.org)

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NOTICE: Maple Flooring Manufacturers Association (MFMA) has published specifications for gymnasium sealers and finishes for maple floors (revised 1999) and lists products which conform to such specifications for the sole purpose of providing guidance to achieving the highest protection and most enduring beauty in wood floors. MFMA's activity in this respect involves no responsibility on its part for product performance or casualty. The products listed herein have been tested by independent testing laboratories and have been found to conform to MFMA's revised specification of 2008.

For the most up-to-date list available go to [www.maplefloor.org](http://www.maplefloor.org).