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About Us

PhyMet, Inc.

PhyMet, Inc., named for the Physicist and Metallurgist who founded the firm, has been dedicated to providing the highest quality solid lubricants since its founding in 1986. The MicroPoly® Lubricants brand, produced by PhyMet, is the industry leader in Microporous Polymeric Lubricants (MPL) for sliding friction and bearing applications.

PhyMet has an extensive research and development laboratory. Its R&D department has led the solid lubricant industry in developing several new innovative, high performing products. These innovations were driven by the demands of our customers for higher efficiencies and longer performance life. PhyMet has developed food grade formulations, industrial formulations, products for high speed, high temperatures, low temperatures, and heavily loaded applications. Our R&D staff has developed products beyond MicroPoly filled bearings. MicroPoly can be used to lubricate chains, gears, bushings, wear plates, wheel flanges, ball screws, and can be processed into a variety of solid profile shapes.

PhyMet has consistently provided superior product quality and technical service and is recognized as the leader in the solid lubrication system industry. PhyMet received the Blue Chip Enterprise Award from the U.S. Chamber of Commerce for “Its superior hiring practices and innovation in manufacturing.” As part of PhyMet’s commitment to total customer satisfaction and outstanding quality, PhyMet is certified to the ISO 9001:2015 standard.

Women Owned

PhyMet, Inc. is certified as a women’s business enterprise by the Women’s Business Enterprise National Council (WBENC), the nation’s largest third-party certifier of the businesses owned and operated by women in the U.S.

We recognize the commitment to supplier diversity that is embraced by corporations and government agencies today, and we can add diversity to your supply chain.

MicroPoly Lubricants

MicroPoly lubricants are a mixture of polymers, oils and selected additives that can be customized for your specific lubrication requirements. PhyMet’s proprietary processing creates a solid lubricant with an oil-filled, porous structure. MicroPoly is over 55% oil by weight. The oil migrates by capillary action to the MicroPoly surface and provides lubrication by transferring the oil to any metal surface that comes in contact with the MicroPoly.

Environmental Friendly

MicroPoly is much more environmentally friendly than conventional lubrication methods, i.e., grease and automatic oiling systems. An important property of MicroPoly is that oil is released from its microporous structure to the bearing surfaces only as it is needed to keep the bearing properly lubricated. Therefore, very little, if any, oil drips into the surrounding environment. In a recent lubrication industry article (1) it was estimated that about 60% of the grease and oil lubrication in conventionally lubricated bearings ends up in the environment; ground water, rivers, lakes and in the ground itself. MicroPoly eliminates the dripping and leakage of oil, and will not contaminate the environment.

Contact Information

Phone: 937-743-8061
800-874-9638
Email: sales@micropoly.com
Website: www.micropoly.com

(1) Machinery Lubrication, Jan-Feb 2012, p. 29
## Cross Reference Guide

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Industrial Application</th>
<th>Food Processing H1</th>
<th>H2</th>
<th>**Wash Down Applications</th>
<th>Upper Temp. Limit</th>
<th>Lower Temp. Guideline</th>
<th>Available as Solid Profiles</th>
<th>*E. P. Additive</th>
<th>Oil Viscosity at 40°C cSt</th>
<th>Oil Viscosity at 100°C cSt</th>
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<tr>
<td>MPI-0800</td>
<td>X</td>
<td>X</td>
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<td>MPI-0779</td>
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<td>X</td>
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<td>-49°F</td>
<td>X</td>
<td>X</td>
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<td></td>
<td></td>
<td>350°F</td>
<td>10°F</td>
<td>X</td>
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<tr>
<td>MPI-2400</td>
<td>X</td>
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<td>-22°F</td>
<td>X</td>
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<td>550</td>
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<td></td>
<td></td>
<td>210°F</td>
<td>5°F</td>
<td>X</td>
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<td>482.5</td>
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<td>MPI-4500</td>
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<td>77</td>
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<tr>
<td>MPI-S700</td>
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<td></td>
<td></td>
<td>250°F</td>
<td>-35°F</td>
<td>X</td>
<td></td>
<td>149</td>
<td>19</td>
</tr>
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<td>MPF-0696</td>
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<td>X</td>
<td></td>
<td>210°F</td>
<td>-49°F</td>
<td>X</td>
<td>X</td>
<td>150</td>
<td>19.1</td>
</tr>
<tr>
<td>MPF-1150</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>210°F</td>
<td>-30°F</td>
<td>X</td>
<td></td>
<td>232.3</td>
<td>25.6</td>
</tr>
</tbody>
</table>

** MPI – Industrial Products  MPF – Food Grade Products  
* E. P. = Extreme Pressure  
Please check website for the most current information.

** MicroPoly will not be washed out by standard water cleaning methods, but MicroPoly will not prevent the corrosion of the bearing. The corrosion inhibitors in MicroPoly will inhibit, but not prevent, corrosion.

### MPI-0800
This is our standard and most requested MicroPoly® formula. This product contains corrosion inhibitors and anti-oxidants. If no formula is specified, bearings will be filled with MPI-0800.

### MPI-0779
MPI-0779 contains corrosion inhibitors, anti-oxidants, and E. P. additives. It is the best product for low temperature applications.

### MPI-2000
MPI-2000 is a high temperature product. It is recommended for applications up to 350°F. It contains corrosion inhibitors, anti-oxidants, and E. P. additives.

### MPI-2400
MPI-2400 can handle temperatures up to 350°F. It has better wash down capabilities than MPI-2000. It contains corrosion inhibitors, anti-oxidants, and E. P. additives.

### MPI-2500
MPI-2500 contains corrosion inhibitors, anti-oxidants and E. P. additives. It is formulated with a high viscosity oil especially designed for heavily loaded bearings operating at lower speeds.

### MPI-4500
MPI-4500 contains E. P. additives, anti-oxidants and corrosion inhibitors. It is formulated with our highest viscosity synthetic oil, especially designed for heavier loaded bearings at low speeds.

### MPI-S700
MPI-S700 is a high-speed product that contains corrosion inhibitors, anti-oxidants, and E. P. additives. MPI-S700 is designed for higher rotation speeds. Ndm values are approximately 50% greater than our standard MicroPoly grades (see page 8 in catalog). Call for assistance to determine upper limits for your application.

### MPF-0696
MPF-0696 is NSF registered for both H1 & H2 applications. The H1 designation indicates that the product may be used in applications where there may be incidental contact with food. The H2 designation indicates that the product may be used in food processing applications where there is no direct contact with food. This product contains corrosion inhibitors, anti-oxidants, and E. P. additives.

### MPF-1150
MPF-1150 is a new food grade MicroPoly and is similar to MPF-0696, but the oil has a higher viscosity. It is NSF registered for H1 and H2 applications. This product contains corrosion inhibitors, anti-oxidants and E. P. additives.

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For more information, visit our website at www.micropoly.com

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PhyMet, Inc. ¦ 75 N. Pioneer Blvd. ¦ Springboro, OH 45066 ¦ 800-874-9638  
July 2018
MicroPoly® Filled Bearings

PhyMet’s processing creates a solid lubricant with an oil-filled porous structure. The MicroPoly fills the space between the rolling elements and races in a bearing, providing constant and consistent lubrication. There is no need for additional lubrication during the life of a MicroPoly filled bearing.

Because it is a solid, MicroPoly can help block debris and reduce foreign contamination of the bearing. Reducing the incursion of debris into the bearing can significantly extend the bearing’s life. The solid structure of MicroPoly also improves housekeeping, as it does not drip out of the bearing and contaminate the environment.

Limiting Speeds

This table gives the Ndm values for MicroPoly at ambient temperatures. The maximum operating speed (rpm) for our standard products MPI-0800, MPI-0779, MPF-0696, MPF-1150, MPI-2500, and MPI-4500 can be calculated for different bearing types using the following:

Maximum RPM = \[
\frac{\text{Ndm Value}}{\frac{1}{2} (\text{Bore} + \text{O.D.})}
\]

Note: Bore and O.D. must be in mm.

The maximum operating speed may need to be decreased as the operating temperature increases. The values given in this table may be affected by the quality of the bearings used. High quality bearings generally out perform lower quality bearings.

<table>
<thead>
<tr>
<th>Bearing Type</th>
<th>Ndm Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single row ball bearing, metal cage</td>
<td>300,000</td>
</tr>
<tr>
<td>Single row ball bearing, plastic cage</td>
<td>40,000</td>
</tr>
<tr>
<td>Double row ball bearing</td>
<td>150,000</td>
</tr>
<tr>
<td>Angular contact ball bearing</td>
<td>150,000</td>
</tr>
<tr>
<td>Self-aligning ball bearing</td>
<td>150,000</td>
</tr>
<tr>
<td>Cylindrical roller bearing</td>
<td>150,000</td>
</tr>
<tr>
<td>Needle roller bearing</td>
<td>150,000</td>
</tr>
<tr>
<td>Spherical roller bearing</td>
<td>85,000</td>
</tr>
<tr>
<td>Tapered roller and roller thrust bearings</td>
<td>45,000</td>
</tr>
<tr>
<td>Double tapered roller bearing</td>
<td>22,500</td>
</tr>
</tbody>
</table>
Standard Industrial Grades: MPI-0800, MPI-0779

PhyMet’s basic industrial grades of MicroPoly contain specially blended oils, polymer and other solids to provide the best physical properties and lubrication characteristics.

**MPI-0800** is PhyMet’s original formulation. It is the least expensive and the most frequently requested MicroPoly formula. This product contains corrosion inhibitors and anti-oxidants. It can be used in most applications that are not heavily loaded and operate near ambient temperatures.

**MPI-0779** was developed as an improvement to MPI-0800. It utilizes a high quality synthetic oil, which allows it to operate in a wider temperature range than MPI-0800. In addition to corrosion inhibitors and anti-oxidants, an E. P. (Extreme Pressure) additive is included to extend its load carrying ability. The synthetic oil employed in this product has the lowest temperature range of all the industrial products.

Industrial Grades for High Loads: MPI-2500, MPI-4500

Over the years we have continued to develop new products to meet the expressed needs of our customers. In response to customer requests, we have introduced two new formulas designed specifically for higher load applications.

**MPI-2500** was formulated with a high viscosity synthetic oil to be used in applications where bearings are more heavily loaded, especially at low speeds. It also contains corrosion inhibitors, anti-oxidants and E.P. additives.

**MPI-4500** contains a higher viscosity synthetic oil than MPI-2500. It’s designed to be used in very heavily loaded bearing applications. It also contains corrosion inhibitors, anti-oxidants and E. P. additives.
High Temperature: MPI-2000 & MPI-2400

Breakthrough:
PhyMet has introduced two products, developed by its scientists, that extend the useful temperature range compared to standard MicroPoly® systems. These two new MicroPoly compositions can withstand temperatures up to 350°F.

MPI-2000 filled bearings can be used in non-wash down conditions at temperatures up to 350°F. It contains corrosion inhibitors, anti-oxidants, E. P. (Extreme Pressure) additives, and wear/friction reducing additives. This high temperature product can be easily identified by its red color.

MPI-2400 filled bearings can be used in wash down conditions at temperatures up to 350°F. It contains corrosion inhibitors, anti-oxidants, E. P. (Extreme Pressure) additives and wear/friction reducing additives, and has better wash down capabilities than MPI-2000. This high temperature product is off-white.

The limiting speeds for MPI-2000 and MPI-2400 at ambient temperatures can be calculated using the Ndm values on page 4. As with our standard products, the maximum allowable speed will decrease as the operating temperature increases. However, the effective temperature range of these products is extended (350°F) compared to our standard products (200-225°F). Call our Customer Service or Engineering Department if speed at high temperature is a concern.

Typical Applications:
- Bakery—ovens
- Cement processing—kiln rolls
- Glass manufacturing—ovens
- Incinerators
- Steel processing
  - Billet turner
  - Continuous annealing
  - Furnace rolls
  - Melt shop
  - Reheat furnace
  - Table rolls
Food Grade: MPF-0696 & MPF-1150

**Breakthrough:**
PhyMet's MPF-0696 and MPF-1150 food grade lubricants are NSF registered for both H1 and H2 applications.

**MPF-0696** can be used to lubricate bearings and can be provided in solid profiles. It contains corrosion inhibitors, antioxidants and E. P. (Extreme Pressure) additives. The E. P. additive helps in reducing friction between heavily loaded rolling elements. This product has an effective temperature range of -49°F to 210°F.

**MPF-1150** is a new formula developed by PhyMet in response to our customers’ requests for a food grade product specifically designed for large, heavily loaded bearings. MPF-1150 is similar to MPF-0696, but contains a higher viscosity oil. The effective temperature range is -30°F to 210°F.

**What do H1 and H2 mean?**
The USDA created the food grade designations of H1 and H2. The H1 designation is for lubricants that are used in food processing environments where there is the possibility of incidental food contact. H2 lubricants are used in locations where there is no possibility of food contact. Prior to 1999, the USDA was responsible for registering food grade products. All USDA product registrations prior to 1999 are still in effect.

After 1999, responsibility for registering food grade lubricants passed to NSF International. MicroPoly® formula MPF-0696 and MPF-1150 have been registered with the NSF as both an H1 and an H2 lubricant. For more information about the NSF standards, please visit www.nsf.org.

All food grade products are initially white, but over time may change to yellow. This color change does not affect the performance of the product.
High Speed: MPI-S700

Breakthrough:
PhyMet has developed a new MicroPoly® formulation that can operate at speeds higher than any other microporous polymeric lubricant (MPL) product currently on the market. The new formula, MPI-S700, is a breakthrough in MPL technology and will enable MicroPoly to be used in a variety of lubrication applications that previously were outside the speed limitations of this technology. This product contains corrosion inhibitors, antioxidants, and E. P. (Extreme Pressure) additives. MPI-S700 has been dyed green to let you know we are “go” for high speeds!

The following charts show the speed limits for three common types of bearings (at ambient temperature):

### Comparison of Max RPM of MPI-0800 vs. MPI-S700

<table>
<thead>
<tr>
<th>Bearing Type</th>
<th>Mean Diameter (mm)</th>
<th>Max RPM for MPI-0800</th>
<th>Max RPM with MPI-S700</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single row ball</td>
<td>65</td>
<td>4,615</td>
<td>7,170</td>
</tr>
<tr>
<td>Spherical roller</td>
<td>65</td>
<td>1,308</td>
<td>2,190</td>
</tr>
<tr>
<td>Tapered roller</td>
<td>65</td>
<td>692</td>
<td>1,560</td>
</tr>
</tbody>
</table>

*Note: Mean diameter is calculated as follows: Mean diameter = 0.5(ID + OD)
MicroPoly® Filled Bearings

There are several critical parameters that determine which MicroPoly grade is best for your specific bearing application. The information below will be used by our sales/technical staff to help you select the proper MicroPoly product for your needs. Please have this information handy when you call, or complete the form and fax it to us at 937-568-6743, or email sales@micropoly.com.

### Bearing Check List

<table>
<thead>
<tr>
<th>DATE:</th>
<th>COMPANY NAME:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTACT NAME:</td>
<td>PHONE:</td>
</tr>
<tr>
<td>E-MAIL:</td>
<td>FAX:</td>
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<td>APPLICATION:</td>
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<table>
<thead>
<tr>
<th>BEARING #</th>
<th>BORE SIZE:</th>
<th>OD:</th>
<th>AMBIENT TEMP:</th>
<th>SPEED:</th>
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<tbody>
<tr>
<td>BEARING #</td>
<td>BORE SIZE:</td>
<td>OD:</td>
<td>AMBIENT TEMP:</td>
<td>SPEED:</td>
</tr>
<tr>
<td>BEARING #</td>
<td>BORE SIZE:</td>
<td>OD:</td>
<td>AMBIENT TEMP:</td>
<td>SPEED:</td>
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</table>

<table>
<thead>
<tr>
<th>CURRENT LIFE TIME:</th>
<th>CURRENT METHOD OF LUBRICATION:</th>
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</thead>
<tbody>
<tr>
<td>DESIRED LIFE:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING CONDITIONS (WATER, CONTAMINANTS, CHEMICALS, ETC.):</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>CAGE MATERIAL:</th>
<th>LOAD CONDITIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>METAL</td>
<td>LIGHT</td>
</tr>
<tr>
<td>PLASTIC</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>QUANTITIES TO BE QUOTED:</th>
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</table>

<table>
<thead>
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<th>COMMENTS:</th>
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<tbody>
<tr>
<td>------------</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>------------</td>
</tr>
</tbody>
</table>
MicroPoly® Chain Lubrication System

This system employs grooved blocks of MicroPoly to lubricate chains. The applicator is available in a variety of designs, one of which is shown below. The block’s profile is designed to fit into the chain profile. The oil contained in the MicroPoly is transferred as the chain moves along the blocks. Since MicroPoly has a large reservoir of oil, the blocks provide a long lasting method of chain lubrication with reduced maintenance and improved housekeeping and safety. The applicator sizes are listed in the table at right.

Applicator Sizes
Available in 6" lengths.

<table>
<thead>
<tr>
<th>ANSI Chain</th>
<th>Single</th>
<th>Double</th>
<th>Triple</th>
<th>Quadruple</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>35</td>
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<td>41</td>
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<td>80</td>
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<tr>
<td>100</td>
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<td></td>
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<td>120</td>
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<td>160</td>
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<td>180</td>
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<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>240</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MPF-0696 and MPI-0779 generally in stock. Also available in other formulas. Minimum order quantities may apply.
MicroPoly® Chain Lubricating Sprockets

A sprocket made from MicroPoly provides a unique method of lubricating chains. When inserted as an idler sprocket in a chain line, oil is transferred from the MicroPoly to the chain as the sprocket rotates against the chain. Since the MicroPoly has a large reservoir of oil, the sprockets provide a long lasting method of chain lubrication with reduced maintenance and improved housekeeping and safety.

MicroPoly sprockets are used as idler sprockets, and should not be used as drive sprockets or tensioning sprockets. MicroPoly sprockets should be mounted on the slack side of the chain.

Available Sprockets Are:

- 3519
- 4018
- 5017
- 6015

Please contact PhyMet’s technical staff (937) 743-8061 for details on custom sprockets.
MicroPoly® Lube Arcs: Wheel Flange Lubrication

PhyMet’s revolutionary MicroPoly lube arcs dramatically reduce wear on overhead crane wheel flanges.

The Problem:
An automotive manufacturer in England was experiencing excessive flange wear and premature wheel failure. Wheel life was less than 12 months.

The Solution:
Before installing MicroPoly lube arcs, the average wear rate was 0.712 mm/month. After installing the lube arc assembly, the wear rate was reduced to 0.034 mm/month. That represents a reduction of >90% for the wheel flange wear rate.

The customer reports that they will save $350,000 over 10 years by installing the MicroPoly lube arcs on three cranes. This cost savings is based on purchasing fewer wheels over the life of the crane and does not include savings from the downtime involved in replacing the wheels. It also excludes additional savings that will be realized due to improved safety and housekeeping in the plant.

Case Study Flange Wear Data

This patented system (US 8,002,085) consists of two MicroPoly arcs and a mounting system that makes use of existing axle bolts on each side of the crane wheel assembly. The mounting systems are custom made to fit each crane precisely.

The Benefits:
✓ Easy to install
✓ Cut maintenance costs and downtime
✓ Can increase wheel life over 10 times
✓ Custom made to fit your application

MicroPoly formula MPI-0779 is standard for all MicroPoly lube arcs. Other formulations may be available upon request.
MicroPoly® Standard Solid Profiles

MicroPoly Lubricants are solid, and can be processed into a variety of shapes with various polymer processing techniques.

**Typical Applications for MicroPoly Solid Profiles:**
- Bushings
- Chain lubrication
- Spherical plain bearing lubrication
- Wear plates
- Wheel flange lubrication
- Custom profiles (see page 14)

### Standard MicroPoly Solid Profiles – In Stock

<table>
<thead>
<tr>
<th>Nominal Diameter</th>
<th>Cross-section</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3”</td>
<td>round</td>
</tr>
<tr>
<td>2.35”</td>
<td>round</td>
</tr>
<tr>
<td>1”</td>
<td>round</td>
</tr>
<tr>
<td>3/4”</td>
<td>round</td>
</tr>
<tr>
<td>1/2”</td>
<td>round</td>
</tr>
<tr>
<td>1/4”</td>
<td>round</td>
</tr>
<tr>
<td>1/8”</td>
<td>square</td>
</tr>
<tr>
<td>17 mm</td>
<td>round</td>
</tr>
<tr>
<td>1” x 2”</td>
<td>rectangle</td>
</tr>
<tr>
<td>1 11/16” x 3/4”</td>
<td>rectangle</td>
</tr>
<tr>
<td>3/4” x 1 3/4”</td>
<td>rectangle</td>
</tr>
<tr>
<td>0.18” x 3.0”</td>
<td>rectangle</td>
</tr>
<tr>
<td>1/2” x 4”</td>
<td>rectangle</td>
</tr>
<tr>
<td>1” x 4”</td>
<td>rectangle</td>
</tr>
</tbody>
</table>

### MicroPoly Solid Profiles – Special Order

<table>
<thead>
<tr>
<th>Nominal Diameter</th>
<th>Cross-section</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/16”</td>
<td>round</td>
</tr>
<tr>
<td>9 mm</td>
<td>round</td>
</tr>
<tr>
<td>0.061” x 2.6”</td>
<td>rectangle</td>
</tr>
</tbody>
</table>

Profiles are available in a variety of lengths. Minimum order quantities may apply.

These profiles are available in MicroPoly formulas: MPI-0779 and MPF-0696.

For more information, visit our website at www.micropoly.com  PhyMet, Inc. ° 75 N. Pioneer Blvd. ° Springboro, OH 45066 ° 800-874-9638  © MicroPoly is a registered trademark of PhyMet, Inc.
MicroPoly® Custom Profiles

MicroPoly solid profiles can be custom-made for specific lubrication applications. Some examples shown below are profiles that were extruded and cut to length; others were machined to customer specifications; and some were punched from MicroPoly sheets. Many of the applications have replaced felt based lubricators. MicroPoly eliminates the need for re-oiling and spillage that can occur with conventional lubrication systems.

Our Engineering Staff can work with you to design specific profiles to meet your lubrication needs.

Typical Applications for MicroPoly Custom Profiles:
- Ball bushings
- Ball screws
- Clutch bearing lubrication
- Gear lubrication
- Linear bearings
- MicroPoly washers
Automotive Applications

**MicroPoly® Filled Bearings:**
- Abrasive machine bearings
- Assembly line, pallet bearings
- Assembly plant, overhead trolley wheels
- Conveyor bearings
- Crankshaft, overhead conveyor/trolley wheels
- Forging machine, auto loader bearings
- Forming machine bearings
- Grinder chuck bearings
- Machine tool bearings
- Multi-spindle screw machine bearings
- Paint system bearings
- Phosphate line, overhead conveyor/trolley wheels
- Roll bearings
- Special machine, index table bearings
- Special machine, pallet bearings
- Stamping plant, conveyor bearings
- Stamping plant, shotblast screw conveyor bearings
- Stamping press, flywheel & drive shaft bearings
- Tire grinder bearings
- Towmotor, front wheel spindle bearings
- Truck assembly, transfer conveyor bearings
- Truck axle, king pin bearings
- Welding machine bearings

**MicroPoly Lubrication for Bushings and Wear Plates:**
- 4-slide wire forming machine slides
- 6" forging machine slides
- Machine tool slides
- Stamping press, bushings & gear faces
- Stamping press, wear plates
- Tool room grinder slides

**MicroPoly Conveyor Chain Lubrication:**
- Assembly line, carrier & chain drive
- Car body transfer system
- Conveyor chain support
- Stamping plant, sheet metal automation

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**An automotive manufacturer saves** over $100,000 annually by replacing traditionally lubricated tapered roller bearings with MicroPoly filled bearings. The tapered roller bearings are on assembly line pallets traveling through a transmission washer. Instead of replacing the bearings every three months, the bearings are now lasting over two years.

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For more information on applications and case histories, visit our website at [www.micropoly.com](http://www.micropoly.com).
Food and Beverage Applications

**MicroPoly® Filled Bearings:**
- Bakery, depunner litter chain bearings
- Bakery, dough mixer bearings
- Bakery, proof box conveyor bearings
- Beverage bottling line bearings
- Brewery, bottling line bearings
- Brewery, packaging conveyor bearings
- Brewery, packaging equipment bearings
- Brewery, seaming roll bearings
- Canning line bearings
- Cans, seam roller bearings
- Cereal, packaging equipment bearings
- Chicken plant, feather picker bearings
- Dairy, overhead conveyor bearings
- Dairy, ice cream carton shrink wrapper bearings
- Dairy, milkshake machine bearings
- Fish canning equipment bearings
- Fish tank, agitator bearings
- Fruit, concentrator conveyor bearings
- Meat slicing equipment bearings
- Meat packing, conveyor bearings
- Meat packing, steel cart bearings
- Pickle processing, labeling machine bearings
- Pizza production, conveyor & wrapping machine bearings
- Onions, cage mill bearings
- Potato, chip sorter bearings
- Potato, cutter head bearings
- Potato, oven dryer bearings
- Soft drink, bottling line bearings
- Sugar beet, wash down & processing bearings
- Tomato, lift gate bearings
- Tomato, incline bulk dump conveyor bearings
- Trout farm, fish processing bearings
- Yogurt, container filling bearings

**MicroPoly Conveyor Chain Lubrication:**
- Breweries and soft drink manufacturing
- Candy manufacturing

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*A chicken processor saves* over $170,000 annually by replacing traditionally lubricated single row ball bearings with MicroPoly filled bearings. The bearings are used in a feather picker. MicroPoly lubrication has more than tripled the life of the bearings.

*A potato chip manufacturer saved* almost 4 million dollars over 6 years using MicroPoly in their conveyor bearings. Traditionally lubricated bearings on their potato chip sizer were lasting 6 - 8 weeks due to salt and other seasonings penetrating the bearings. Downtime costs the customer $25,000 per hour. Prior to using MicroPoly, bearing failure led to an average of two hours of downtime per month. Customer has experienced no downtime due to bearing failure since installing MicroPoly. In the words of this customer, MicroPoly is “One of the best things we’ve done in a very long time.”

For more information on applications and case histories, visit our website at www.micropoly.com.
Metal Processing Applications

**MicroPoly® Filled Bearings:**
- Acme strip grinder/polisher bearings
- Billet turner bearings
- Coil car bearings
- Crane hook bearings
- Crane pulley bearings
- Crane wheel bearings
- Gear box bearings
- Heat treat furnace fan bearings
- Hot strip mill, runout table roll bearings
- Quench tank bearings
- Skip car bearings
- Slab mill feeder table bearings
- Steel coil straightener bearings
- Steel pipe, coating oven bearings
- Strip grinder, squeegee & brush roll bearings
- Table roll bearings
- Tire cord, multi-strand wire cabling bearings
- Wire drawing, wire reel bearings

**MicroPoly Lubrication for Bushings and Wear Plates:**
- Coil car liners
- Edge trimmer screws
- Expansion mandrel slides
- Iron ore pellet lines
- Liners/wear plates
- Shot blast car bushings
- Slipper brasses

**MicroPoly Conveyor Chain Lubrication:**
- Re-bar and angle iron
- Conveyor return guide

**MicroPoly Flange Wheel Lubrication:**
- Crane wheels
- Locomotive wheels

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A steel processor saves down time costs of $250,000 by replacing traditionally lubricated spherical roller bearings with MicroPoly filled bearings. The spherical roller bearings are in a steel coil straightener and are not accessible to lubricate. MicroPoly lubricants have extended the bearing life from six months to over three years.

For more information on applications and case histories, visit our website at www.micropoly.com.
Miscellaneous Applications

- Agriculture
- Animated Christmas dolls
- Bar soap manufacturing
- Car washes
- Carpet mills
- Chemical processing
- Coal mines
- Concrete pipe
- Disk harrow
- Earth moving
- Fertilizer plants
- Fish pond aerators
- Floodgate actuators
- Floor buffers & strippers
- Gypsum plants
- Lamination lines
- Mattress manufacturing
- OEM
- Paper processing
- Power generation
- Pharmaceutical
- Plain spherical bearings
- Reverse vending machines
- Robotic machines
- Roofing
- Treated lumber
- Trenching machines
- Tug boats
- Vacuum chamber, tram-car wheels
- Waste treatment
- Wire drawing
- Wood products

Foundry Applications

MicroPoly® Filled Bearings:
- Bucket elevator conveyor bearings
- Conveyor bearings
- Mold conveyor, wheel & guide bearings
- Muller bearings
- Overhead conveyor/trolley wheels
- Shotblast bearings

Printing Applications

MicroPoly Filled Bearings:
- Immersion pump
- Letter press
- Printing press

Oil Field Applications

MicroPoly Filled Bearings:
- Crown blocks
- Mud pumps

A utility company is saving several hundred thousand dollars a year by replacing traditionally lubricated tapered roller bearings with MicroPoly filled ones. The MicroPoly bearings are lasting over five times longer.

For more information on applications and case histories, visit our website at www.micropoly.com.