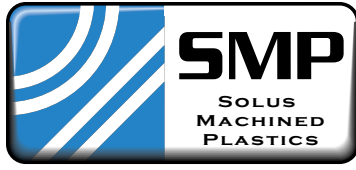




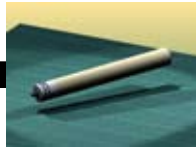
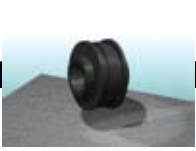
**Specializing in CNC machining  
and extruding for:**

- Conveying Equipment**
- USDA/FDA Processing**
- Electronics**
- Automotive**
- Agricultural**
- Food Service**

**On the cutting edge  
of engineered plastics.**



# Plastic Design and Manufacturing



## We put our leadership on the line for you.

When you're looking for a high quality, wear resistant plastic product, look to SMP. Our full line of products combines stainless steel, aluminum and engineered plastics to achieve reliability, superior performance and a compactness of design.

As one of the world's leading processors of precision engineered plastics, SMP has a tradition of innovation and quality. SMP components have become the standard of quality and performance in a wide range of industries, including conveyor manufacturing, materials handling, power transmission, packaging, and many more.



In addition to manufacturing excellence, SMP has earned a reputation for outstanding customer service, offering a full range of design, custom fabrication, and support services. We hope you'll take a moment now to look through this comprehensive brochure. Then, when you're ready to discuss your needs with a Solus representative, please call toll-free: 866-765-8744. We look forward to hearing from you.



## Engineering:

### The department of infinite possibilities.

Customers around the world know that the shortest distance between a problem and a solution is to call the SMP Engineering Department. We have the knowledge and experience to take your "wish list" and turn it into an effective product design. One that will solve your problem in the most effective and cost-efficient way possible.

After all, this is the same engineering department that holds patents for such innovations as Nolu-S, an internally-lubricated UHMW alloy. And, it is the originator of many components that have now become industry standards.

SMP engineers use the latest in design technologies. These advanced systems allow us to develop and modify designs quickly and cost-efficiently. And, they enable our engineers to quickly transmit designs to and from customers. When you want to tap into the best engineering minds in the business, send your specifications to SMP.



## Production:

### Achieving flawless precision.

It's often very easy to tell SMP parts from competitive products. Because SMP's parts are always smooth, well-finished, and free of burrs and seam lines. This is a reflection of the intense devotion to detail that marks every aspect of SMP's production capabilities.

At its new climate-controlled manufacturing center, SMP operates one of the industry's most advanced and versatile production facilities. Here, a unique combination of computer controlled machinery and experienced operators gives SMP the ability to turn out virtually any component, in any quantity.

Our precision fabrication capabilities include:

- Turning
- Milling
- Shaping and Sawing
- Planning
- Punch Press
- Drill Press
- Hot Stamping
- Roll Forming
- Tool & Die Shop
- Reverse Engineering

## Quality and Service:

### Your expectation, our standard.

Customers expect the best from SMP. We're committed to delivering nothing less. In every phase of our operation, from design, to production, to quality assurance, SMP is committed to complying with your stringent quality standards.

Our quality processes begin with complete training of all personnel in the principles of total quality manufacturing techniques. Because the best time to control quality is at the very start. Then, we verify quality at every step, through in-process inspections and bar coding, followed by final inspections by full-time quality control specialists.

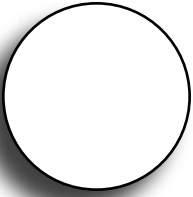
In making our final tests, SMP's QC experts have the most sophisticated measuring equipment available.





Specializing in  
Premium UHMW-PE

# Select Your Material



## UHMW-PE Natural white

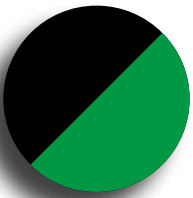
This bright white, ultra high molecular weight material is the choice for a wide variety of applications. The low friction characteristics of UHMW allow containers to move at high speed with minimum drag, container damage, and noise. The result is a material of higher wear resistance, which is color stable, and of uniform consistency. The value added material meets FDA (Food and Drug Administration) specification. CFR 177. 1520.1

### Features:

- Extruded or machined
- Wide selection of shapes
- Extended coil lengths of various shapes available
- Smooth surface

### Benefits:

- Low friction
- High wear resistance
- Higher temperature resistance



## Nolu-BR black, Nolu-GR green

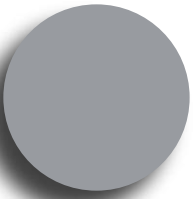
A proprietary blend of UHMW resins that is popular for use in conveyor chain tracks. Nolu-BR or GR maintain excellent chemical and corrosion resistance, while providing low friction, superior rigidity, and resistance to wear.

### Features:

- Machined
- Popular conveyor chain solid track material

### Benefits:

- High wear and abrasion resistance
- Economic material
- Chemical resistant



## Nolu-S grey

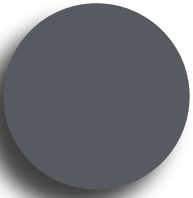
Nolu-S is a patented blend of UHMW and other dry lubricants that maintain good wear characteristics while significantly reducing coefficients of friction. Its unique self-lubricating properties make it ideal for applications requiring reduced friction, noise reduction, and higher dry-running speeds.

### Features:

- Extruded or machined
- Very low coefficient of friction - promotes material flow
- High-impact strength
- Chemical resistant with minimal moisture absorption
- FDA & USDA approved ingredients
- Noise suppressant
- Easy to machine – most general power tools are sufficient

### Benefits:

- Extends the life of mating surfaces
- Lowers mating surface scratching or damage
- Reduces energy consumption
- Minimizes product pulsation on conveyors
- Low noise operation



## Nolu-SR dark grey

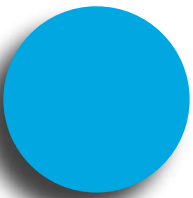
Nolu-SR features a much harder, longer wearing composition which is used in most high speed / high load applications. Nolu-SR helps guide PET containers in high speed, air conveying applications. It is the material of choice, proven to increase throughput, reduce jam ups, and extend product life. Nolu-SR chain tracks offer the ultimate in UHMW wear resistance combined with low friction properties. Nolu-SR, in specific applications, is used as a superior alternative to Nylatron.

### Features:

- Extruded or machined
- Superior wear resistance – greater than standard virgin or repro material
- Low coefficient of friction - promotes material flow
- High-impact strength
- Chemical resistant with minimal moisture absorption
- FDA & USDA approved ingredients
- Easy to machine – most general power tools are sufficient

### Benefits:

- High wear resistance
- Extends the life of mating surfaces
- Lowers mating surface scratching or damage
- Reduces conveyor chain loads or damage
- Reduces energy consumption
- Reduces product pulsation on conveyors
- Low noise operation
- Suitable for running dry at higher speed



## BluMax blue

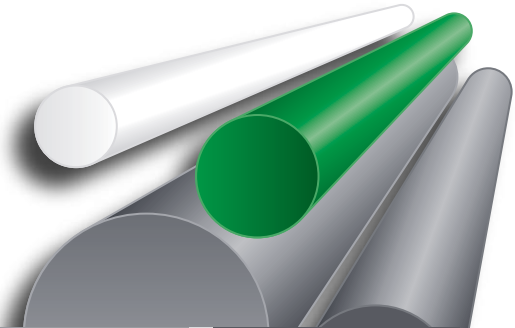
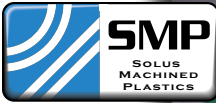
BluMax is a new antimicrobial material for improved hygiene. To support the effectiveness of your cleaning efforts, Solus offers the possibility to use BluMax in combination with chains and a wide range of components / guide rails.

### Features:

- Antimicrobial material for improved hygiene
- Can be extruded or machined
- Wide selection of shapes
- Low coefficient of friction
- High wear resistance
- High-impact strength
- Excellent chemical resistance
- Antimicrobial additive is widely accepted and universally approved
- Negligible moisture absorption
- Easy to machine – most general power tools are sufficient

### Benefits:

- Even distribution of antimicrobial additive
- Inhibits growth of bacteria, mold, and yeast
- Provides odor control
- For use in dairy, meat and poultry industries
- Extremely durable
- Thermally stable
- Color stable
- Includes all the benefits of UHMW-PE
- Sanitary solution



## Round bars

Diameter inches	UHMW-PE Natural		Nolu-BR		Nolu-GR		Nolu-S		Nolu-SR	
	Length		Length		Length		Length		Length	
	5 ft	10 ft	5 ft	10 ft	5 ft	10 ft	5 ft	10 ft	5 ft	10 ft
5/8	011R10A-5	011R10A-10	081R10A-5	081R10A-10	017R10A-5	017R10A-10	012R10A-5	012R10A-10	273R10A-5	273R10A-10
1	011R16A-5	011R16A-10	081R16A-5	081R16A-10	017R16A-5	017R16A-10	012R16A-5	012R16A-10	273R16A-5	273R16A-10
1-1/4	011R20A-5	011R20A-10	081R20A-5	081R20A-10	017R20A-5	017R20A-10	012R20A-5	012R20A-10	273R20A-5	273R20A-10
1-1/2	011R24A-5	011R24A-10	081R24A-5	081R24A-10	017R24A-5	017R24A-10	012R24A-5	012R24A-10	273R24A-5	273R24A-10
2	011R32A-5	011R32A-10	081R32A-5	081R32A-10	017R32A-5	017R32A-10	012R32A-5	012R32A-10	273R32A-5	273R32A-10
2-1/2	011R40A-5	011R40A-10	081R40A-5	081R40A-10	017R40A-5	017R40A-10	012R40A-5	012R40A-10	273R40A-5	273R40A-10
3	011R48A-5	011R48A-10	081R48A-5	081R48A-10	017R48A-5	017R48A-10	012R48A-5	012R48A-10	273R48A-5	273R48A-10

On request and for adequate quantities these bars can be produced with different lengths.

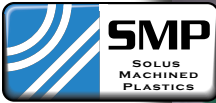
## Rectangular Bar & Wear Strips

Machined product. 10 foot lengths. Items in **red** are extruded with longer continuous lengths available. Part numbers in this table are for Natural White UHMW-PE. To specify other SMP materials, substitute the part number prefix "HS" with the following:

Use: "BR" for **Nolu-BR** "GR" for **Nolu-GR** "SS" for **Nolu-S** "SR" for **Nolu-SR**

Width inches	Thickness inches									
	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	
1/2	HS-0208-10	HS-0308-10	HS-0408-10	HS-0508-10	HS-0608-10	HS-0808-10	-	-	-	-
3/4	HS-0212-10	HS-0312-10	HS-0412-10	HS-0512-10	HS-0612-10	HS-0812-10	HS-1012-10	HS-1212-10	-	-
1	HS-0216-10	HS-0316-10	HS-0416-10	HS-0516-10	HS-0616-10	HS-0816-10	HS-1016-10	HS-1216-10	HS-1416-10	-
1-1/4	HS-0220-10	HS-0320-10	HS-0420-10	HS-0520-10	HS-0620-10	HS-0820-10	HS-1020-10	HS-1220-10	HS-1420-10	-
1-1/2	HS-0224-10	HS-0324-10	HS-0424-10	HS-0524-10	HS-0624-10	HS-0824-10	HS-1024-10	HS-1224-10	HS-1424-10	-
1-3/4	HS-0228-10	HS-0328-10	HS-0428-10	HS-0528-10	HS-0628-10	HS-0828-10	HS-1028-10	HS-1228-10	HS-1428-10	-
2	HS-0232-10	HS-0332-10	HS-0432-10	HS-0532-10	HS-0632-10	HS-0832-10	HS-1032-10	HS-1232-10	HS-1432-10	-
2-1/2	HS-0240-10	HS-0340-10	HS-0440-10	HS-0540-10	HS-0640-10	HS-0840-10	HS-1040-10	HS-1240-10	HS-1440-10	-
3	HS-0248-10	HS-0348-10	HS-0448-10	HS-0548-10	HS-0648-10	HS-0848-10	HS-1048-10	HS-1248-10	HS-1448-10	-
3-1/2	-	-	-	-	-	-	HS-1012-10	HS-1212-10	HS-1412-10	-
4	HS-0264-10	HS-0364-10	HS-0464-10	HS-0564-10	HS-0664-10	HS-0864-10	HS-1064-10	HS-1264-10	HS-1464-10	-
5	-	-	-	-	-	-	-	-	HS-1480-10	-

Width inches	Thickness inches							
	1	1-1/4	1-1/2	1-3/4	2	2-1/4	2-1/2	3
1	HS-1616-10	-	-	-	-	-	-	-
1-1/4	HS-1620-10	HS-2020-10	-	-	-	-	-	-
1-1/2	HS-1624-10	HS-2024-10	HS-2424-10	-	-	-	-	-
1-3/4	HS-1628-10	HS-2028-10	HS-2428-10	-	-	-	-	-
2	HS-1632-10	HS-2032-10	HS-2432-10	HS-2832-10	HS-3232-10	-	-	-
2-1/4	-	-	-	-	-	HS-3636-10	-	-
2-1/2	HS-1640-10	HS-2040-10	HS-2440-10	HS-2840-10	HS-3240-10	HS-3640-10	HS-4040-10	-
3	HS-1648-10	HS-2048-10	HS-2448-10	HS-2848-10	HS-3248-10	HS-3648-10	HS-4048-10	HS-4848-10
3-1/2	HS-1612-10	HS-2012-10	HS-2412-10	HS-2812-10	HS-3212-10	HS-3612-10	HS-4012-10	HS-4812-10
4	HS-1664-10	HS-2064-10	HS-2464-10	HS-2864-10	HS-3264-10	HS-3664-10	HS-4064-10	HS-4864-10
5	HS-1680-10	HS-2080-10	HS-2480-10	HS-2880-10	HS-3280-10	HS-3680-10	HS-4080-10	HS-4880-10
6	HS-1696-10	HS-2096-10	HS-2496-10	HS-2896-10	HS-3296-10	HS-3696-10	HS-4096-10	HS-4896-10



## Sheets

Dimensions: 48 inches wide and 120 inches long.  
Thickness tolerance: 0/+10%

Thickness	UHMW-PE Natural	Nolu-BR	Nolu-GR	Nolu-S	Nolu-SR	BluMax
3/16	*	*	*	012S03B1	273S03B1	287S03B1
1/4	011S04B1	*	017S04B1	012S04B1	*	*
3/8	011S06B1	081S06B1	017S06B1	012S06B1	273S06B1	287S06B1
1/2	011S08B1	081S08B1	017S08B1	012S08B1	273S08B1	287S08B1
5/8	011S10B1	081S10B1	017S10B1	012S10B1	273S10B1	*
3/4	011S12B1	081S12B1	017S12B1	012S12B1	273S12B1	287S12B1
7/8	*	*	*	*	*	*
1	011S16B1	081S16B1	*	012S16B1	273S16B1	287S16B1
1-3/16	*	081S19B1	*	012S19B1	273S19B1	*
1-1/4	011S20B1	081S20B1	*	012S20B1	*	*
1-3/8	*	081S22B1	*	012S22B1	*	*
1-1/2	011S24B1	081S24B1	*	012S24B1	*	*
1-3/4	*	081S28B1	*	012S28B1	*	*
2	011S32B1	*	*	012S32B1	*	*
2-1/2	011S40B1	*	*	012S40B1	*	*
2-3/4	*	*	*	*	*	*
3	*	*	*	012S48B1	*	*

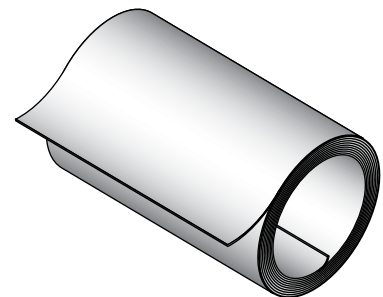
\*On request and for adequate quantities these sheets can be produced

## Tape Rolls

Available in 50 foot lengths.



Width (inches)	Thickness (inches)	UHMW-PE Natural		Nolu-S	
		Standard Coiled Strip	Adhesive backed coiled strip	Standard Coiled Strip	Adhesive backed coiled strip
3/4	1/8	VGT-0612-050	VGT-0612PS-050	-	-
3/4	1/16	VGT-1212-050	VGT-1212PS-050	VGT-1212-NS-050	VGT-1212PS-NS-050
1	1/8	VGT-0616-050	VGT-0616PS-050	-	-
1	1/16	VGT-1216-050	VGT-1216PS-050	VGT-1216-NS-050	VGT-1216PS-NS-050
1-1/2	1/8	VGT-0624-050	VGT-0624PS-050	-	-
1-1/2	1/16	VGT-1224-050	VGT-1224PS-050	VGT-1224-NS-050	VGT-1224PS-NS-050
2	1/8	VGT-0632-050	VGT-0632PS-050	-	-
2	1/16	VGT-1232-050	VGT-1232PS-050	VGT-1232-NS-050	VGT-1232PS-NS-050
6	1/8	VGRU-116-6-50	-	-	-
6	1/16	VGRU-18-6-50	-	VGRU-18-6-NS-50	-
12	1/8	VGRU-116-12-50	-	-	-
12	1/16	VGRU-18-12-50	-	VGRU-18-12-NS-50	-
18	1/8	VGRU-116-18-50	-	-	-
18	1/16	VGRU-18-18-50	-	VGRU-18-18-NS-50	-
24	1/8	VGRU-116-24-50	-	-	-
24	1/16	VGRU-18-24-50	-	VGRU-18-24-NS-50	-



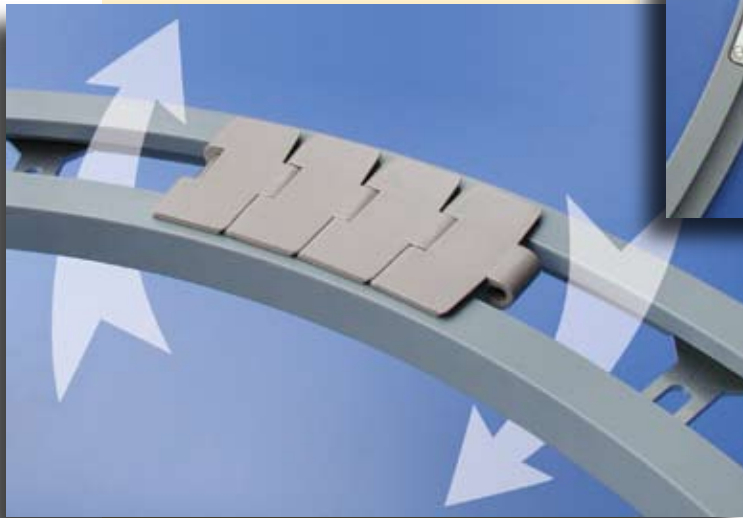
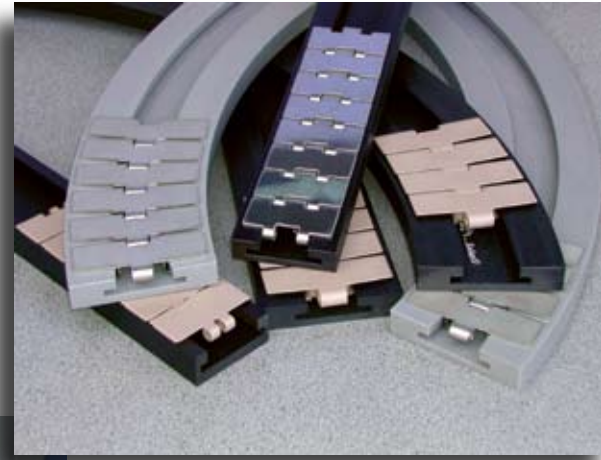


# Conveyor Chain Tracks

ValuTrac™ straight and corner modules are designed to guide side flexing steel and plastic conveyor chains. All ValuTrac modules are manufactured with state of the art computer controlled machinery, assuring parallel sides and a smooth uniform chain guiding surface.

ValuTrac II™ combines the durability and low friction of our engineered plastic wear materials with sturdy stainless steel mounting plates. This unique open design allows unwanted material to simply fall away from the track and not interfere with the movement of the chain. For more information on ValuTrac™ please consult the latest edition of the Solus catalog.

- Nolu BR, S, and SR materials available.
- On request, custom ValuTrac curved and straight sections are available.



Immediate shipment for most popular chain sizes!

## Physical Properties of SMP materials

	Specific Gravity	Tensile Strength	Tensile Modulus of Elasticity, 73°F	Elongation (at break), 73°F	Flexural Modulus of Elasticity, 73°F	Shear Strength	Compressive Strength	Coefficient of Friction (Dry vs Steel) Dynamic	Hardness, Rockwell, 73°F	Tensile Impact, 73°F	Coefficient of Linear Thermal Expansion	Melting Point	MIN. Continuous Service Temp in Air	MAX. Continuous Service Temp in Air	Water Absorption Immersion 24 Hours	Water Absorption Saturation	Effect of sunlight
	MECHANICAL										THERMAL						
Units	-	psi	psi	%	psi	psi	psi	-	-	ft. lb./in <sup>2</sup>	in./in./°F	°F	°F	% by wt.	% by wt.	-	-
Test Method ASTM	D792	D638	D638	D638	D790	D732	D695	D1894	D785	D1822	D696	D789	-	-	D570	D570	-
UHMW-PE	0.93	3,000	100,000	350	100,000	3,300	3,400	0.09-0.15	R64	1,000	9-12 x 10 <sup>-5</sup>	280-289	-40	160-180	0	-	**
Nolu-BR, GR	.93	3,100	110,000	200	110,000	3,500	3,600	0.09-0.15	R68	-	9-12 x 10 <sup>-5</sup>	280-300	-40	160-180	0	-	**
Nolu-S	.94	2,800	90,000	360	100,000	2,900	3,000	0.06-0.12	R61	-	9-12 x 10 <sup>-5</sup>	280-289	32*	140-160	0.1	-	Acceptable
Nolu-SR	.94	3,100	100,000	150	110,000	3,100	3,300	0.06-0.13	R63	-	9-12 x 10 <sup>-5</sup>	280-300	32*	140-160	0.09	-	Acceptable

\* Application conditions such as variations in temperature, humidity, particulates, load, speed, etc., determine the appropriate value. Please contact the SMP engineering department to discuss specific requirements.

\*\* Requires addition of UV stabilizer. Contact SMP for further information.

Note: These are typical values intended for reference and comparison purposes only.

# We're building the future, one small piece at a time.

## The personal component.

A plastics company is only as good as its people. SMP brings together one of the most skilled and experienced teams in the business.

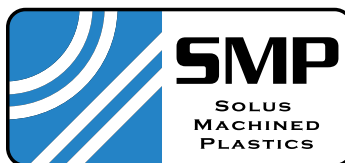
The SMP team includes expert field sales engineers, as well as an expert engineering department that can help you design the right product for any application. Plus a skilled, stable manufacturing crew that knows how to implement the most intricate designs with care and precision. SMP quality control specialists ensure that every part meets the standards of our customers.

Working with SMP's state-of-the-art machinery, this team produces high-quality wear strips that snap into place to provide long-lasting protection on all types of conveyor lines. Guide rails that speed the flow of products down production lines. Chain guides that reduce surface friction to increase the life of chains. Sprockets and pulleys that make machinery operate more quietly by eliminating metal-to-metal contact. And precision machined parts that fit your machinery.

So whatever your application, count on the experts at SMP to help it run faster, better, and longer.

### Machined parts for:

- Food packaging
- Conveyor components
- Chain belt guides
- Sprockets
- Wear strips
- Chain tracks
- Cable pulleys
- Guide rails
- Bearing rollers
- Bushings
- Cans and followers
- Gears
- Sliding bearings



**Giving You The Edge.**

Customer Service: (866) 765-8744 Fax: (866) 447-6587 E-mail: [SMP@Solusii.com](mailto:SMP@Solusii.com)



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Indianapolis, Indiana • Sanford, North Carolina • Tlajomulco de Zuñiga, Jalisco, Mexico

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