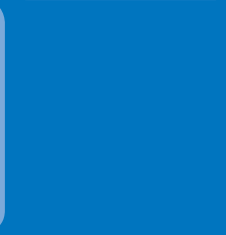
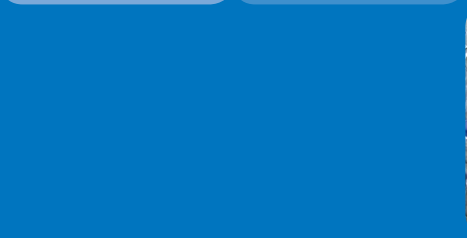
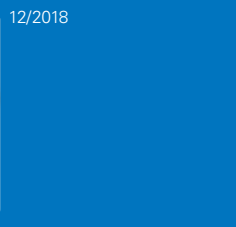
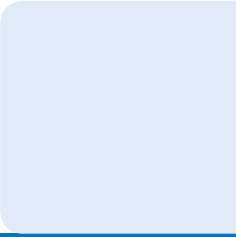
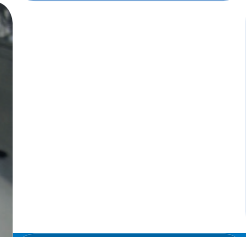
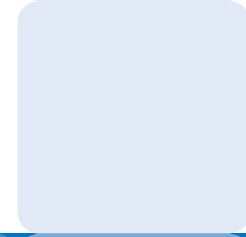
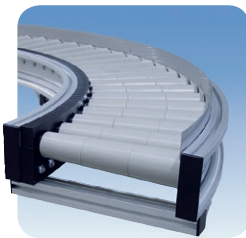


Engineering Plastics for Conveyor and Material Handling Systems



Competence. Quality. Innovation.

Röchling Engineering Plastics is among the world's leading suppliers of engineering plastics to the conveying and material handling industry. Our sales and engineering teams work closely to provide you with the best solution to improve your product's performance. Quick to respond to the needs of our customers, we are constantly pursuing new and improved product designs and manufacturing techniques, allowing us to supply state-of-the-art products at the most economical price.

From polyethylenes, polypropylenes, acetals and nylons to a full range of high-performance and specialty materials, we provide plastic stock shapes for machining into parts that are used on virtually every type of conveyor and material handling system available today.

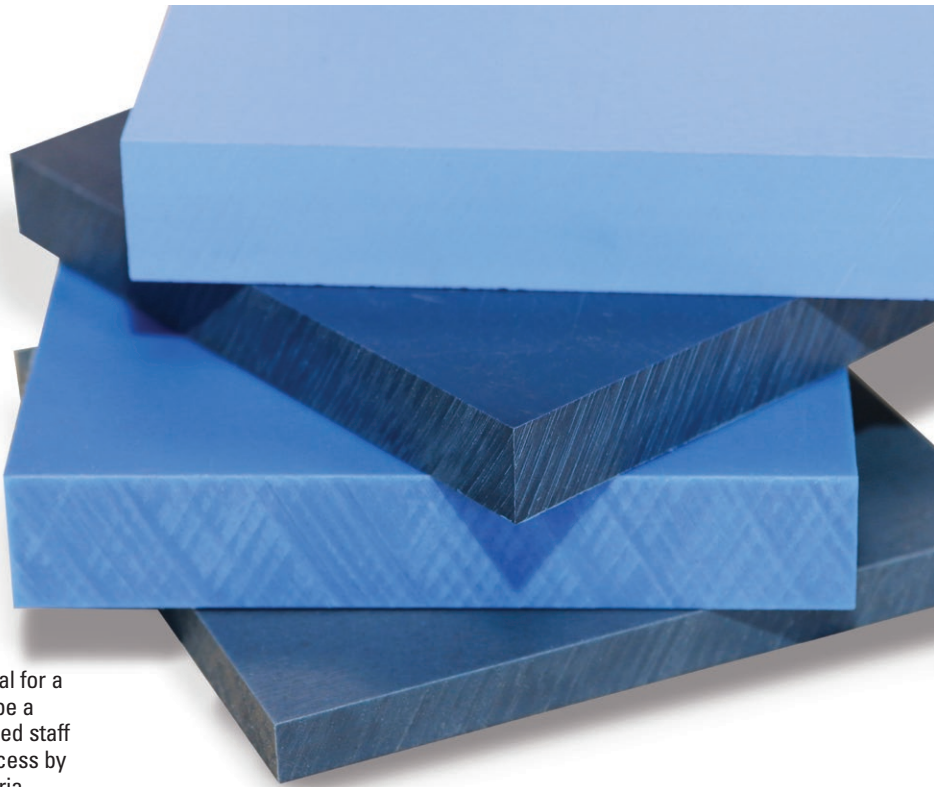
Being experts for innovative material solutions we do recognize the high standards and demands our materials need to fulfill to properly perform in extreme environments. Our materials are highly reliable, durable and easy to machine.

Quality Assurance

Quality through consistency and performance is critical to us, especially due to the nature of the applications that our products are used in. We are certified to ISO 9001: 2015 and with a strong quality program in place, we follow detailed procedures throughout each department to ensure that our products meet all of the necessary industry requirements.

Customer Support

Choosing the best material for a specific application can be a challenge. Our experienced staff can guide you in this process by determining various criteria including: continuous operating temperature, wear or structural requirements, dimensional stability and specifications.



Röchling offers you a wide range of Engineering Plastics for Conveyor and Material Handling Systems

Engineering plastics have improved the performance of conveyor systems by providing unique characteristics or properties over traditional metal parts. Conveyor systems are used throughout many industries including packaging, automation, food and beverage processing, electronic, pharmaceutical and agricultural. New challenges arise as design engineers are tasked with developing conveyors that run faster, increase productivity, control costs and improve quality.

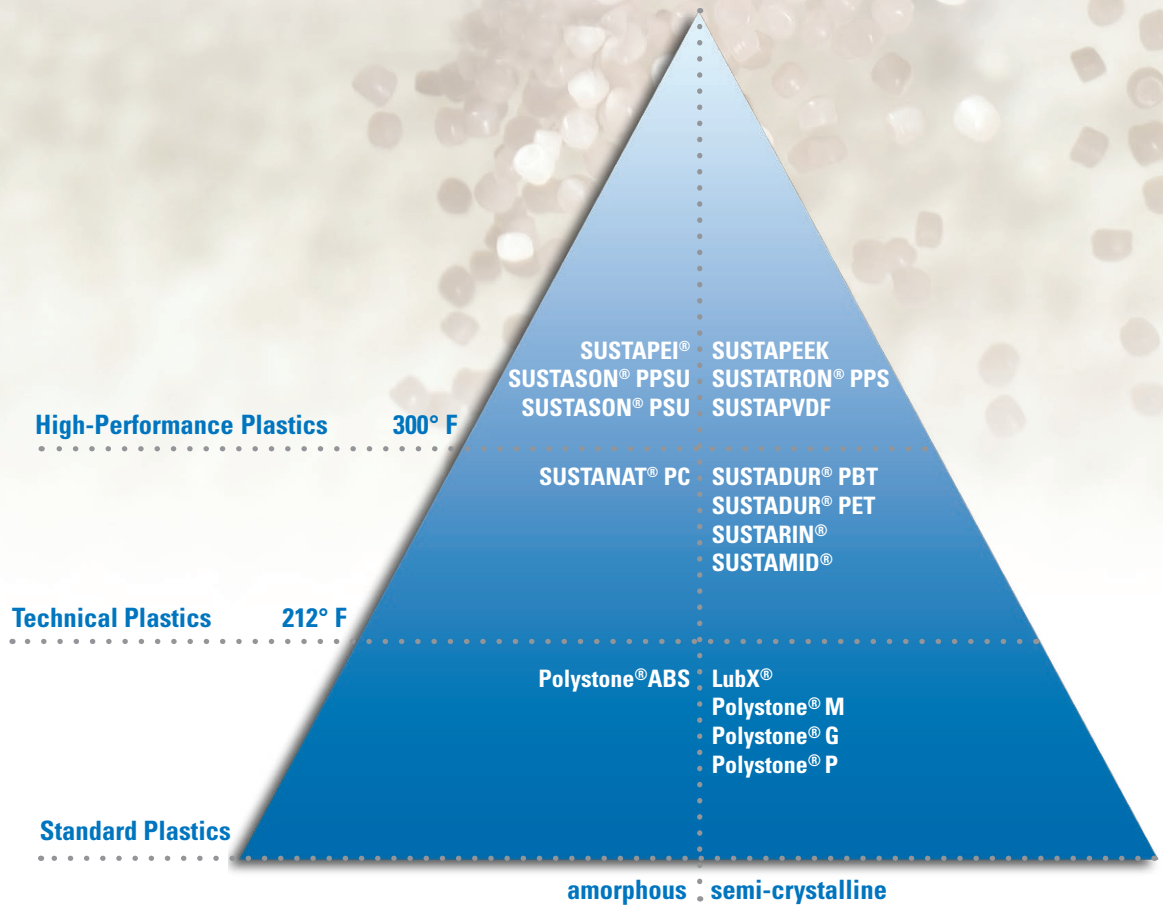
These challenges create more demands on the plastic parts and components.

- Lower coefficient of friction to reduce frictional drag and slip-stick
- Dimensionally stable at faster running speeds
- Improved wear capabilities
- Perform in a wider range of temperatures
- Chemical resistance
- Anti-static properties
- FDA compliant

Röchling Engineering Plastics manufactures and inventories a wide product offering ranging from general purpose plastics to high performance materials. In addition to our standard material grades, we have many specialty plastics that are designed with specific properties or characteristics to meet the ever-changing needs of conveyor and material handling systems. Our staff is eager to help you select the right material for your application.

Important characteristics of plastics

- Excellent sliding properties
- High abrasion resistance
- High degree of resistance to aggressive chemicals
- Remarkable flexibility and mechanical strength
- High degree of impact strength
- Flame-resistant and self-extinguishing
- Electrostatically conductive, dissipative or insulating
- Non-ageing
- UV resistant
- Suitable for use with food



General notes

All the information contained in this product range has been researched to the best of our knowledge. Nonetheless, errors cannot be completely precluded. For this reason, the information contained in the present product range does not involve any kind of obligation or warranty. Accordingly, we therefore do not undertake any responsibility nor any resultant or any other liability, arising in any manner from utilization of this information. No responsibility is undertaken either for the completeness of the products, processes, properties, etc. covered. This work is protected by copyright. All rights, including those of translation, reprint and duplication and/or parts thereof are reserved for Röchling Engineering Plastics. No part of this work may be duplicated, processed or disseminated no matter for what purpose or in what medium without the written approval of Röchling Engineering Plastics. © 2018 Röchling Engineering Plastics

Engineering Plastics for Conveyor and Material Handling Systems

Trade Name	Material Description	Specific Gravity	Tensile Strength	Elongation	Durometer Shore D	FDA Compliance
		D792	D638	D638	D2240	—
		—	PSI	%	—	—
LubX® C	Proprietary blend, superior sliding properties	.93	2,700	>250	D60	Yes
LubX® CV	Proprietary blend, for extreme high speed applications	.94	2,700	>250	D60	Yes
Polystone® M Virgin Natural	UHMW-PE, Standard	.93	3,100	350	D62-66	Yes
Polystone® M Virgin Colors	UHMW-PE, Standard and custom colors	.93	3,100	350	D62-66	Yes
Polystone® M Reprocessed	UHMW-PE, Eco-friendly and economical	.935	3,000	290	D63	No
Polystone® M MPG Glass Filled	UHMW-PE, Superior wear resistance	.96	2,700	265	D63-67	No
Polystone® M Anti-Static	UHMW-PE, 10 ⁶ – 10 ¹¹ ohms/sq surface resistivity	.935	3,100	>350	D63	No
Polystone® M Conductive	UHMW-PE, 10 ³ – 10 ⁶ ohms/sq surface resistivity	.935	3,100	>350	D63	No
Polystone® M-Slide	UHMW-PE, Dry lubricants	.950	3,200	>200	D62-66	No
Polystone® M OL (oil filled)	UHMW-PE, Reduced coefficient of friction	.936	4,800	>260	D62-66	Yes
Polystone® M MDT	UHMW-PE, Metal detectable	.949	4,800	320	D64	Yes
Polystone® M XDT	UHMW-PE, X-Ray detectable	1.0	4,180	760	D65	Yes
Polystone® M M-Soft	UHMW-PE, Gentle sliding properties	.93	3,100	350	D59	No
Polystone® P Homopolymer Nat	Polypropylene, Standard	.91	4,700	14	D72	Yes
Polystone® P Copolymer Nat	Polypropylene, High impact strength	.91	3,500	300	D69	Yes
Polystone® G Virgin Natural	HDPE, Standard	.95	4,000	>600	D65	Yes
Polystone® G Virgin Colors	HDPE, Standard and custom colors	.95	4,000	>600	D65	Yes
SUSTARIN® C	Acetal Copolymer	1.41	9,500	40	D85	Yes
SUSTARIN® C ESD 60	Acetal Copolymer Conductive	1.44	11,400	5	D86	No
SUSTARIN® C ESD 90	Acetal Copolymer Static Dissipative	1.33	11,000	30	D86	No
SUSTARIN® C MDT	Metal Detectable Acetal	1.55	9,000	10	D82	Yes
SUSTARIN® C XDT	X-Ray Detectable Acetal	1.57	7,200	6	D70	Yes
SUSTARIN® H	Acetal Homopolymer (Delrin®)	1.42	10,500	40	D83	Yes
SUSTARIN® H AF	Acetal Homopolymer (Delrin®) AF Blend	1.50	8,000	20	D85	No
SUSTAMID® 6G	Cast Nylon	1.14	12,000	25	D78	Yes
SUSTAMID® 6G MO	Cast Nylon (MoS ₂) Molly-filled	1.15	12,500	35	D80	No
SUSTAMID® 6G OL	Cast Nylon Oil Filled	1.15	11,000	30	D74	No
SUSTAMID® 66	Extruded Nylon	1.14	12,000	40	D80	Yes
SUSTAMID® 66 MO	Extruded Nylon (MoS ₂) Molly-filled	1.15	12,000	25	D85	No
SUSTAPEEK	PEEK	1.32	16,000	20	D85	Yes
SUSTAPEEK GF 30	PEEK Glass Filled 30%	1.51	24,000	3	D86	No
SUSTAPEEK XDT	PEEK X-Ray detectable	1.44	14,500	4.5	D80	Yes
SUSTADUR® PET	PET	1.41	12,000	30	D87	Yes
SUSTAPEI®	ULTEM™ 1000	1.27	16,700	80	D86	Yes
SUSTAPEI® GF 30	ULTEM™ Glass-Filled 30%	1.51	20,000	3	D86	No
SUSTAPVDF	Kynar® 740	1.78	7,000	100	D77	Yes
SUSTANAT® PC	Polycarbonate	1.20	10,000	75	D80	No

Please visit our website for more product details and a complete listing of material properties. www.roechling.com/us/industrial



Röchling offers the food & beverage industry

- A broad spectrum of plastics in compliance with FDA regulations.
- No negative influence on the health of the consumers or composition, taste, smell or appearance of the food

Plastics for direct contact with food

Röchling offers a large selection of engineering plastics for food and beverage processing machinery. Most of these materials are FDA approved and can be used in direct contact with food.

Our Polystone® M (UHMW-PE) is one of the most commonly used engineering plastics – from the early stages of sorting, mixing and filling to the final stages of packaging. Parts and components machined from Polystone® M are self-lubricated and provide excellent impact and wear resistance.

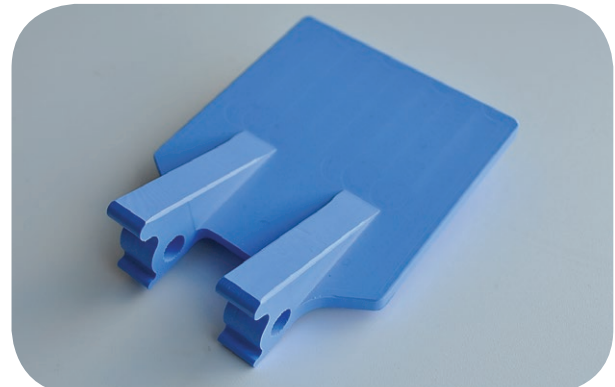
For parts such as bushings, rollers and portion fillers that also require a tighter tolerance and a much higher degree of dimensional stability, our SUSTARIN® C (Acetal Copolymer) is the best choice.

We also offer a unique selection of detectable plastics in UHMWPE, Acetal and PEEK used in applications within the food, beverage and pharmaceutical industries. Repeated handling, aggressive cleansing agents combined with normal wear

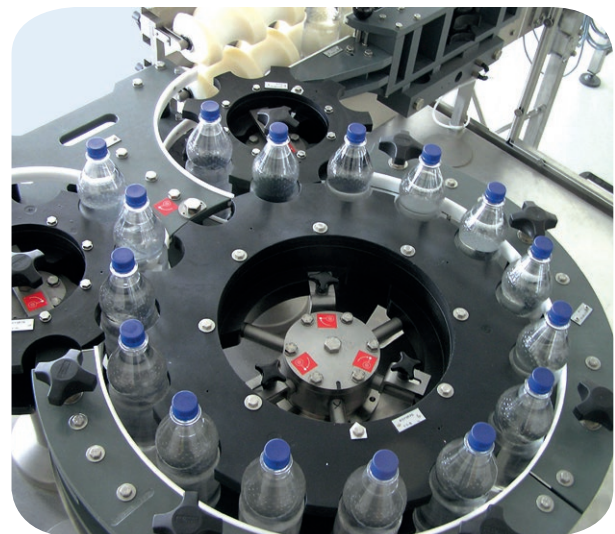
and tear of plastic component parts on processing machinery increase the risk of food source contamination. Our detectable plastics have been proven to be detected in a particle sizes as small as a 2mm cube on production lines running as fast as 250 feet-per minute. Our MDT (metal detectable) and XDT (X-Ray detectable) family of materials add a critical layer of protection to HACCP plans and offer peace of mind to quality control and food safety managers.

Common Food and Beverage Processing applications:

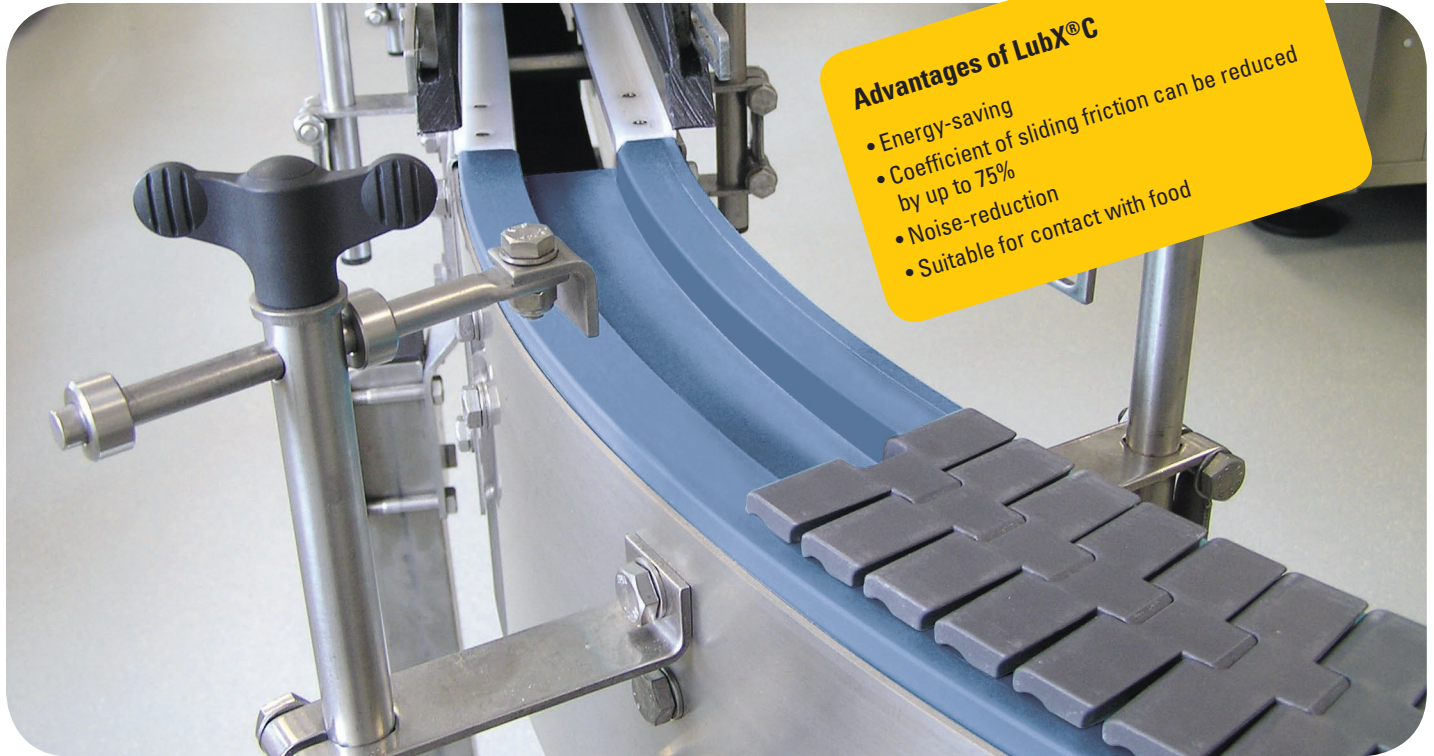
- **Wear strips**
- **Chain guides**
- **Guide rails**
- **Rollers**
- **Mixer paddles**
- **Scraper blades**
- **Baffles**
- **Timing screws**
- **Portion fillers**
- **Star wheels**



Mixer paddle machined from SUSTAPEEK XDT X-ray detectable PEEK.



Star wheels and guides machined from Polystone® M Black (UHMW-PE)



Advantages of LubX® C

- Energy-saving
- Coefficient of sliding friction can be reduced by up to 75%
- Noise-reduction
- Suitable for contact with food

Lower coefficient of friction requires less energy

Today's packaging machinery is more complex than ever and designed to run faster and more efficient. Whether filling, wrapping or labeling, higher speeds result in more wear and build-up of frictional heat.

Our standard grades of UHMW-PE, acetal and nylon are used extensively as machined parts and components on all types of packaging machinery due to their wear and impact resistance and overall good sliding properties.

We also provide high-performance materials such as PEEK and ULTEM™ that excel in maintaining their physical properties at elevated temperatures.

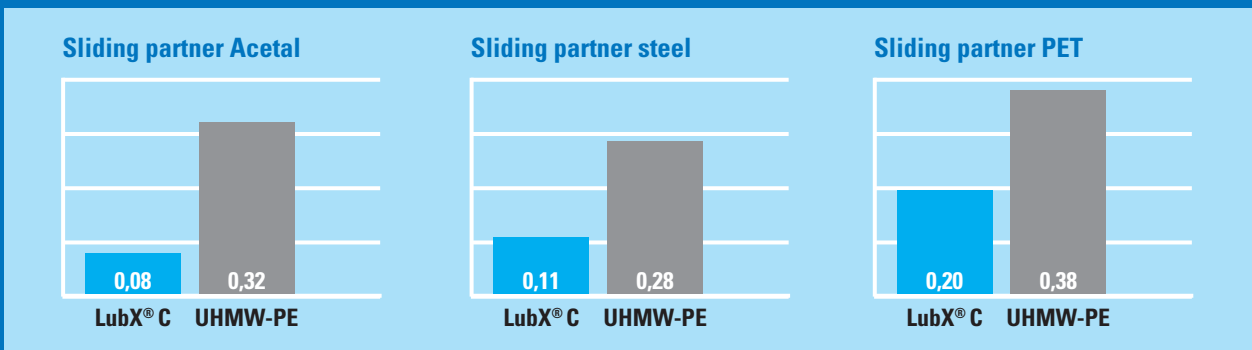
In response to the demand for better performance and sliding properties, we developed a very unique, high performance polymer, LubX® C. Designed specifically for conveying and material handling applications, LubX® C blends UHMW-PE with a proprietary blend of dry-running lubricants.

This product is proven to reduce the coefficient of friction up to 75% and eliminates slip-stick in tight curve tracks. Conveying systems equipped with LubX® C require considerably less energy even when running at higher speeds.

Common Packaging Machinery applications:

- Straight and curved chain tracks
- Sprockets
- Gears
- Guide rails
- Rollers
- Sorter push blocks
- Under-chain wear strips
- Chute liners
- Belt guides
- Timing screws

Comparison of sliding properties



Coefficients of sliding friction under dry conditions / Validated on the application-related Röchling tribology test stand
Speed: 0.25 m/s, Surface pressure: 0.25 MPa, Test time: 24h

Innovative solutions for turnkey systems

Industrial automation utilizes control systems and information technologies to reduce the need for human work in the production of goods and services. The main advantage is higher consistency and quality, reduced handling and improved work flow.

Engineering plastics play a vital role as sliding and wear parts throughout the various stages of assembly, packaging, sorting and warehousing.

In addition to a complete offering of standard grade UHMW-PE,

acetal and nylon, we also provide premium grades that have unique properties for enhanced performance in these applications.

Polystone® M Anti-Static (UHMW-PE) reduces static build-up as chute liners and wear strips. Bushings, rollers, guide rails and wear strips are commonly machined from our low-friction products such as Polystone® M (UHMW-PE) and nd SUSTAMID® 6G (cast nylon) OL (oil filled) or SUSTAMID® 6G (cast nylon) MO (molly filled).

Common Industrial Automation applications:

- Guide rails
- Chute liners
- Wear Strips
- Lane dividers
- Bushings and rollers
- Pillow blocks
- Gears and sprockets
- Side plates
- Carrier racks
- Pallet fixtures

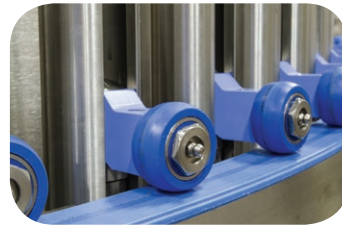
Plastics properties for efficient material flow

- Minimal sliding friction
- High degree of abrasion resistance
- Impact strength
- Antistatic properties
- Suitable for contact with food

Custom and standard Polystone® M (UHMW-PE) extruded profiles



Rollers machined from SUSTAPEEK XDT material



Polystone® M Anti-Static chain conveyor guide



Polystone® M-Slide reduces package jams and sort times

Röchling Polystone® M-Slide is designed to handle the high-impact rigors of the packaging and material handling industry, while increasing package throughput.

Polystone® M-Slide is an advanced UHMW-PE formulation developed with unique additives designed to reduce its coefficient of friction by more than 20% when compared to natural Polystone® M. Our additives eliminate the need for surface wax, reducing the possibility of employee injuries, and complying with OSHA standards. Polystone® M-Slide is perfect for the demands of packaging and material handling industries that require plastics with exceptional friction and abrasion resistance.

Industry Applications

Polystone® M-Slide is ideal for non-stick gravity chute liners, straight and curved tracks, guide rails, chain guides, starwheels, wear plates and non-stick conveyors.





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