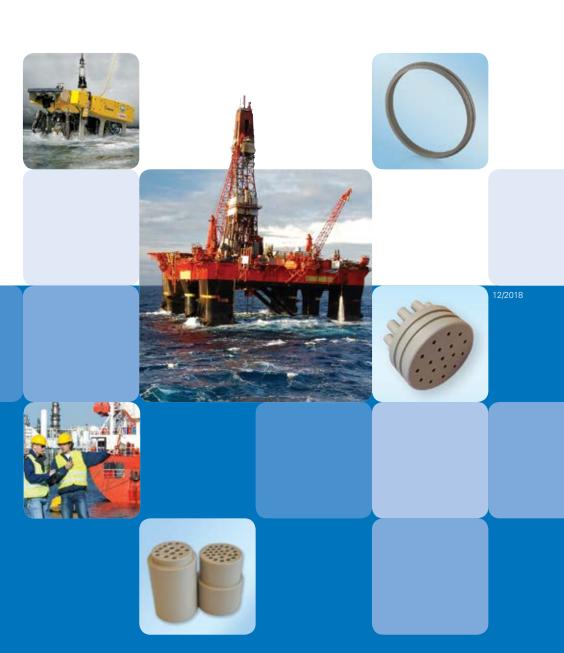


# **High Performance Plastics for the Oil & Gas Industry**



Thermoplastics

## Röchling - A World Leader in Engineering Plastics

## Competence. Quality. Innovation.

Röchling Engineering Plastics is among the world's leading suppliers of engineering plastics to the oil and gas industry. Our sales and engineering teams work closely to provide you with the best solution to improve your 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 in applications for the oil & gas industry. 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. Certifications are provided with all of our high performance materials.

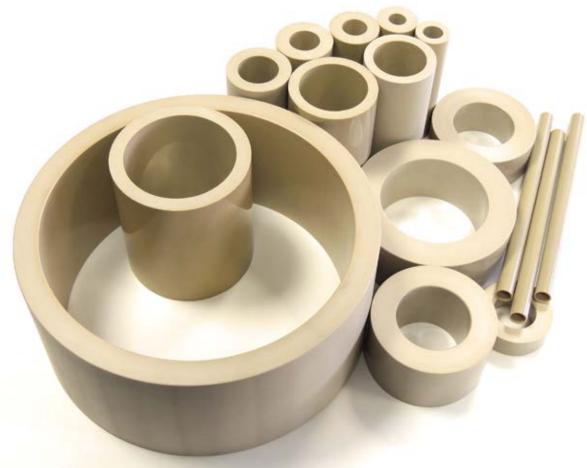
## Customer Support

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.









## Typical Oil and Gas Applications

- Sheaves
- Winch drum shells
- ROV components
- Wear/slide pads
- Pipeline bundle skids and rollers
- · Analytical instruments
- · Electrical connectors
- Fire water pumps
- · Cable clamps
- · Flow meter components
- Centralizers
- Sensors
- · Seals and valve seats







## High Performance Thermoplastics

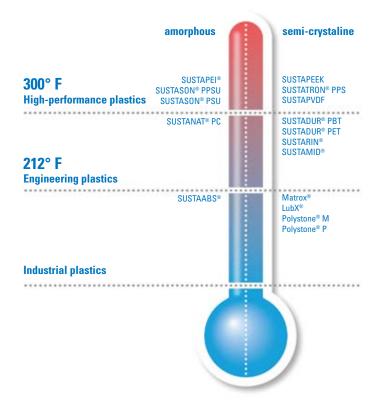
From manufacturing polyethylene, polypropylene, acetal and nylon, Röchling also manufactures various grades of PEEK (polyether ether ketone). Our SUSTAPEEK offers exceptional properties:

- Continuous use temperature of 480° F
- · Excellent mechanical strength
- Dimensional stability
- Good chemical resistance
- Low weight (1/7th weight of steel)
- Excellent long term creep characteristics
- Corrosion resistant

## Using Plastics in Harsh Environments?

As the remaining reserves of oil and gas become harder to collect, the environments are becoming more severe. In many instances this will dictate if the introduction of thermoplastics or composites will meet the required demands. Whether it is higher temperatures, higher loads or aggressive chemicals, let Röchling help you. We have many years of experience and would like to offer this expertise to our customers. All inquiries welcome.





## **Engineering Plastics for the Oil and Gas Industry**

Trade Name	Material Description	Specific Gravity	Tensile Strength	Elongation	Durometer Shore D	Continuous Service Temp. °F
		D792	D638	D638	D2240	_
		_	PSI	%	_	_
LubX® C	Proprietary Blend, Superior sliding properties	.93	2,700	>250	D60	180
Matrox®	UHMW-PE, Proprietary Blend	.93	2,900	>250	D63	180
Polystone® M Virgin Natural	UHMW-PE, Standard	.93	3,100	>350	D62-66	180
Polystone® M Virgin Colors	UHMW-PE, Standard and custom colors	.93	3,100	>350	D62-66	180
Polystone® M Reprocessed	UHMW-PE, Eco-friendly and economical	.9394	3,000	>290	D63-69	180
Polystone® MPG Glass Filled	UHMW-PE, Superior wear resistance	.96	2,700	>265	D63-69	180
Polystone® M Anti-Static	UHMW-PE, $10^6 - 10^{11}$ ohms/sq surface resistivity	.94	3,000	>290	D62-66	180
Polystone® M Conductive	UHMW-PE, $10^3 - 10^6$ ohms/sq surface resistivity	.94	3,000	>290	D62-66	180
Polystone® M-Slide	UHMW-PE, Dry lubricants	.96	3,000	>200	D62-66	180
Polystone® M OL	UHMW-PE, Oil filled, Reduced coefficient of friction	.94	3,000	>260	D62-66	180
Polystone® P Homopolymer Natura	Polypropylene, Standard	.91	4,700	14	D72	180
Polystone® P Copolymer Natural	Polypropylene, High impact strength	.91	3,500	>300	D69	180
Polystone® G Natural	HDPE, Standard	.95	4,000	>600	D65	180
Polystone® G Colors	HDPE, Standard and custom colors	.95	4,000	>600	D65	180
SUSTARIN® C	Acetal Copolymer	1.41	9,500	40	D85	180
SUSTARIN® C ESD 60	Acetal Copolymer Conductive	1.33	11,400	5	D86	200
SUSTARIN® C ESD 90	Acetal Copolymer Static Dissipative	1.44	11,000	30	D86	180
SUSTARIN® H	Acetal Homopolymer (Delrin®)	1.42	10,500	40	D83	185
SUSTARIN® H AF	Acetal Homopolymer (Delrin®) AF Blend	1.50	8,000	20	D85	185
SUSTAMID® 6G	Cast Nylon	1.14	12,000	25	D78	200
SUSTAMID® 6G MO	Cast Nylon, Molly filled (MoS <sub>2</sub> )	1.15	12,500	35	D80	200
SUSTAMID® 6G OL	Cast Nylon Oil Filled	1.15	11,000	30	D74	210
SUSTAMID® 66	Extruded Nylon	1.14	12,000	40	D80	220
SUSTAMID® 66 MO	Extruded Nylon, Molly filled (MoS <sub>2</sub> )	1.15	12,000	25	D85	220
SUSTAPEEK	Polyether ether ketone	1.32	16,000	20	D85	480
SUSTAPEEK CF 30	Polyether ether ketone 30% Carbon filled	1.41	20,000	5	D93	480
SUSTAPEEK GF 30	Polyether ether ketone 30% Glass filled	1.51	24,000	3	D86	500
SUSTADUR® PET	Polyether ether ketone	1.41	12,000	30	D87	230
SUSTAPEI®	ULTEM™ 1000	1.27	16,700	86	D86	340
SUSTAPEI® GF 30	ULTEM™ 30% Glass filled	1.51	20,000	3	D86	340
SUSTASON® PPSU	Radel® R	1.29	11,000	30	D80	320
SUSTAPVDF	Kynar® 740	1.78	7,000	100	D77	300
SUSTANAT® PC	Polycarbonate	1.20	10,000	75	D80	250
SUSTAKON®	Polyketone	1.24	8,800	>300	-	_

## **Topside, Subsea and Downhole Applications**





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The information listed herein is stated to the best of our knowledge and is intended to provide general guidelines for Röchling products and their uses. The values given are based on laboratory testing backed with global industry experience. All properties in this brochure have performed equal or better in laboratory testing. However, the data should not be considered as guaranteed specific properties. Suggested applications are provided for information only and are not specific recommendations.