

FDR 富德尔
服务全球市场的流体行业专业品牌

**RUBBER AND PLASTIC
ONE-STOP SOLUTION PROVIDER**
橡塑一站式方案解决商

温州富德尔密封科技有限公司
WENZHOU FUDEER SEALING TECHNOLOGY CO., LTD.

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GENERAL MANAGER'S
SPEECH
总经理致辞



首先感谢各位新老客户对富德尔多年的支持与厚爱，温州富德尔密封科技有限公司自成立以来，锐意创新、不断开拓，成功地打造了氟塑密封件一体化产品服务及解决方案，我们将始终以“共赢、共生、卓越、感恩”的企业经营理念回报社会；我们感谢社会各界对我公司的大力支持和无私关爱、感恩广大客户和合作伙伴的大力支持、感动辛勤工作在各个岗位上的员工们！

一个人只有自信和努力才能使自己有所成就，一个企业更是如此，商海茫茫，千舟竞发；自信使我们在这个竞争与发展同在、机遇与挑战并存的商业环境中信心更足；努力让我们学会脚踏实地和不懈追求；企业有了这两点，就扎下了发展的根。它使企业里的每一个人在生活和工作中充满了尊严，闪耀着人性、智慧的灵光；使我们的合作者和我们一样更加信心百倍地迎接未来。我们真诚欢迎社会各界宾朋莅临我公司指导，共谋发展、共创辉煌！

First of all, thank you all new and old customers for their support and love to Fudel for many years. Since its establishment, Wenzhou Fudel Sealing Technology Co., Ltd. has been determined to innovate and continue to develop, and successfully created an integrated product service and solution for fluoroplastic seals. Always repay the society with the business philosophy of "win-win, symbiosis, excellence, and gratitude"; we thank all sectors of the society for their strong support and selfless care to our company, thank our customers and partners for their strong support, and move our hard work in various positions Employees!

Only with self-confidence and hard work can a person achieve success. This is especially true for a company. The business world is boundless and thousands of boats compete; self-confidence makes us more confident in this business environment where competition and development coexist, opportunities and challenges coexist; Let us learn to be down-to-earth and unremitting pursuit; the enterprise has these two points, and it has taken the root of development. It makes everyone in the company full of dignity in their life and work, shining with the aura of humanity and wisdom; it makes our collaborators welcome the future with more confidence just like us. We sincerely welcome guests and friends from all walks of life to visit our company for guidance, and seek common development and create brilliant!

ABOUT US
关于我们

温州富德尔密封科技有限公司创始团队自 2008 年起深耕密封行业，企业坐落于浙南工业发展核心区域，交通便利。公司是一家集氟橡胶密封件、聚四氟乙烯、特种工程塑料、机械密封件研发、制造、销售与服务于一体的综合性密封件制造企业。

公司拥有标准化生产车间，配备模压成型、烘烤及全套检验检测设备。产品规格型号齐全，可支持非标定制；原材料涵盖硅橡胶、三元乙丙橡胶、丁腈橡胶、氟橡胶、PTFE、RPTFE 等。产品广泛应用于石油、化工、阀门、纺织、印染、环保、电力、电器、汽车、冶金及通用机械等领域，部分产品远销海外多个国家和地区。

公司为中国塑协、中国液压气动密封件协会会员单位。原材料选用杜邦氟材料，长期与华东理工大学、北京航空材料研究院开展技术交流合作，严格参照行业规范把控生产质量。公司秉持“创新质量是生命，客户满意是责任”的理念，竭诚服务海内外客户。

展望未来，公司将继续坚持求实创新，与员工携手共筑梦想，与客户携手提升价值，与行业同仁共赢发展、共创社会尊重！

Founded by a team with deep roots in the sealing industry since 2008, Wenzhou Fudeer Sealing Technology Co., Ltd. is located in a key industrial hub of southern Zhejiang with convenient transportation. It is an integrated manufacturer specializing in the R&D, production, sales and service of fluororubber seals, PTFE products, special engineering plastics and mechanical seals.

The company operates standard workshops equipped with molding, baking and full testing facilities. It offers a complete range of products and supports custom non-standard solutions. Raw materials include silicone rubber, EPDM, NBR, fluororubber, PTFE and RPTFE. Its products are widely used in petroleum, chemical, valve, textile, printing and dyeing, environmental protection, electric power, electrical appliances, automotive, metallurgy and general machinery, with some exported overseas.

A member of China Plastics Processing Industry Association and China Hydraulics Pneumatics & Seals Association, the company uses DuPont fluoromaterials and maintains long-term technical cooperation with East China University of Science and Technology and Beijing Institute of Aeronautical Materials, strictly following industry standards for quality control. Upholding the philosophy "Innovation and quality are life; customer satisfaction is responsibility", it serves clients worldwide.

Looking ahead, the company will continue to pursue practical innovation, grow with its employees, create value for customers, and achieve win-win development with industry partners.



WELL-EQUIPPED
设备精良



STABLE QUALITY
质量稳定



GOOD REPUTATION
口碑良好

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QUALIFICATION HONOR 资质荣誉

富德尔获得的资质和荣誉，是对我们过去取得成绩的肯定，
也是对我们创造明日辉煌的鼓舞和鞭策！
向新的台阶迈进，是我们顽强拼搏，永不停歇的信念！

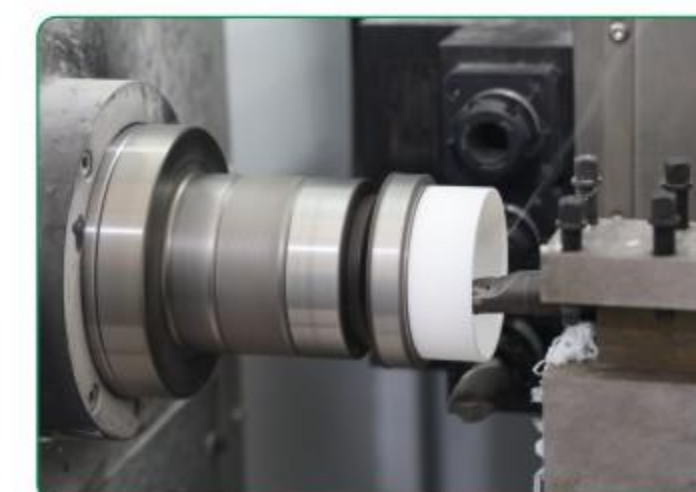
The qualifications and honors obtained by Fudeer are affirmation of our achievements in the past.
It is also an encouragement and spur for us to create tomorrow's glory!
To move to a new level is our tenacious struggle and never-ending belief!



PTFE MOLDING WORKSHOP 四氟成型车间

对我们而言高品质意味着我们的产品和服务在每一个环节都必须达到国内外客户的要求。因此我们采用了全面质量管理体系，严格控制每一道生产服务程序，力求完美。随着各方面品质的不断提高，我们也进一步得到了客户的信任。

For us, high quality means that our products and services must meet the requirements of domestic and foreign customers in every aspect. Therefore, we have adopted a comprehensive quality management system, strictly control every production service procedure, and strive for perfection. With the continuous improvement of quality in all aspects, we have further gained the trust of customers.





{ RUBBER MOLDING WORKSHOP 橡胶成型车间

对我们而言高品质意味着我们的产品和服务在每一个环节都必须达到国内外客户的要求。因此我们采用了全面质量管理体系，严格控制每一道生产服务程序，力求完美。随着各方面品质的不断提高，我们也进一步得到了客户的信任。

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{ QUALITY CONTROL 品质管控

富德尔在品质管控及检测方面也是始终如一，严守品质生命线。

Fudeer is also consistent in quality control and testing, and strictly adheres to the quality lifeline.



FDR

RUBBER AND PLASTIC ONE-STOP SOLUTION PROVIDER
橡塑一站式方案解决商

RAW MATERIAL WAREHOUSE 原材料仓库



PRODUCT WAREHOUSE 成品仓库

公司拥有高精度的数控机床和加工中心，先进的设备及检测仪器，精良的工艺以及严格完善的质量管理体系，并聚集具有专业技术精英和领先水平的科技队伍，充分利用新科技、新工艺、新材料、保证产品的稳定性和可靠性。

The company has high-precision CNC machine tools and machining centers, advanced equipment and testing instruments, excellent craftsmanship, and a strict and complete quality management system. It has gathered a professional and leading technology team, fully utilizing new technology, new processes, and new materials to ensure the stability and reliability of products.



EPDM
三元乙丙橡胶材料

FFKM
全氟醚

VMQ
硅橡胶

NBR
丁腈橡胶材料

PCTFE
聚三氟氯乙烯

HNBR
氢化丁腈橡胶材料

FKM
氟橡胶材料

PEEK
聚醚醚酮高分子材料

PTFE
聚四氟乙烯

NYLON
尼龙

概述

橡胶 (Rubber) 是指具有可逆形变的高弹性聚合物材料, 在室温下富有弹性, 在很小的外力作用下能产生较大形变, 除去外力后能恢复原状。橡胶属于完全无定型聚合物, 它的玻璃化转变温度 (T_g) 低, 分子量往往很大, 大于几十万。
橡胶分为天然橡胶与合成橡胶二种。天然橡胶是从橡胶树、橡胶草等植物中提取胶质后加工制成; 合成橡胶则由各种单体经聚合反应而得。橡胶制品广泛应用于工业或生活各方面。

橡胶分类

天然橡胶、通用橡胶、丁苯橡胶、丁腈橡胶、硅橡胶、顺丁橡胶、异戊橡胶、乙丙橡胶、氯丁橡胶等。

应用领域

交通运输、工业矿山、农林水利、军事国防、土木建筑、电气通讯、医疗卫生、商品储存、文教体育、生活用品等。

BOILER MANHOLE SEALING RING 锅炉人孔密封圈



An overview of the

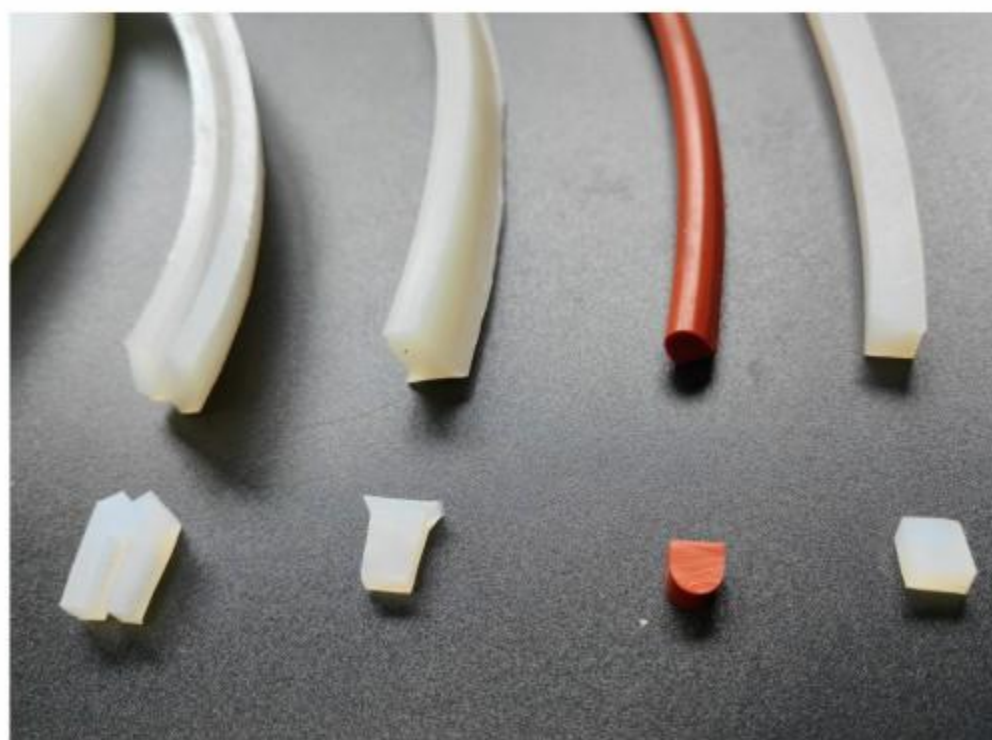
Rubber is a high elastic polymer with reversible deformation. The material is elastic at room temperature and capable of acting under very small external forces. Produces the big deformation, after removing the external force can restore the original shape. Rubber belongs to a completely amorphous polymer with a low glass transition temperature (T_g). Molecular weights tend to be large, more than a few hundred thousand. Rubber is divided into natural rubber and synthetic rubber two kinds. Natural rubber is derived from Rubber tree, rubber grass and other plants extracted from the gum after processing; us Rubber is made by polymerization of various monomers. Rubber products It is widely used in all aspects of industry or life.

The main features

Natural rubber, general rubber, styrene butadiene rubber, nitrile butadiene rubber, silicone rubber, Butadiene rubber, isoprene rubber, ethylene propylene rubber, neoprene, etc.

Application field

Transportation, industrial mines, agriculture, forestry, water conservancy, military, national defense, civil engineering Construction, electrical communications, medical and health care, commodity storage, culture, education and sports, Articles for daily use, etc.



DIVERSITY AND RELIABILITY 多样性和可靠性

EPDM三元乙丙橡胶材料

EPDM ethylene-propylene-diene rubber material

应用领域:
主要应用于食品和药品行业。

特性/优势:

- 弹性体: 乙烯-丙烯-天然橡胶
- 过氧化物固化
- 具备对水性介质良好的抗性
- 对许多CIP介质有良好的抗性
- 对热水和蒸汽的抗性优异
- 对老化和臭氧具有非常好的抗性
- 良好的低温柔韧性
- 对一些植物和动物油/油脂的抗性差

FFKM全氟醚橡胶

FFKM perfluoroether rubber

应用领域:
用于航天、航空、化工、石油、核能等工业部门。

特性/优势:

- 具有弹性
- 聚四氟乙烯的热稳定性
- 化学稳定性
- 在低于脆化温度下仍, 具有一定塑性, 可弯曲
- 优异的耐化学性、耐热性
- 产品具有均质性
- 表面没有渗透、开裂和针孔等困扰
- 帮助用户改善工艺的稳定性
- 延长设备的工作时间

VMQ硅橡胶

VMQ Silicone Rubber

应用领域:
用于高温处理的食物行业。

特性/优势:

- 弹性体: 硅酮天然橡胶
- 大部分是过氧化物固化
- 惰性
- 适中的机械特性
- 对部分酸性介质抗性较弱
- 对部分SIP介质抗性较弱

NBR丁腈橡胶材料

NBR nitrile rubber material

应用领域:
用于食品行业, 特别是肉类加工。

特性/优势:

- 基本弹性体: 丙烯腈-丁二烯-天然橡胶
- 硫固化
- 良好的机械性能
- 对油和油脂的良好抗性
- 用于肉类加工
- 对大部分CIP介质有适中的抗性
- 不适用于蒸汽消毒SIP

HNBR氢化丁腈橡胶材料

HNBR hydrogenated nitrile rubber material

应用领域:
用于高温处理的食物行业。

特性/优势:

- 弹性体: 氢化丁腈橡胶 (HNBR)
- 过氧化物固化
- 良好的机械性能
- 适用于蒸汽消毒SIP
- 对部分CIP介质的抗性较弱



QUICKLY INSTALL THE SEALING RING
 快装密封圈



COPY RING SEAL
 拷贝林密封圈



SPLICE SEAL RING
 活接密封圈



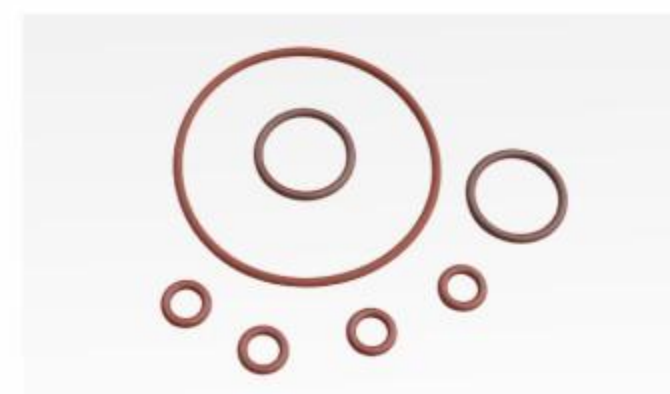
BUTTERFLY VALVE SEAL RING
 蝶阀密封圈



PZ OIL SEAL SEALING RING
 PZ油封密封圈



MANHOLE SEAL RING
 人孔密封圈



VACUUM FITTING O-RING
 真空接头O型圈

别名：PTFE、铁氟龙、特氟龙、teflon、特氟隆、F4、塑料王、四氟。

聚四氟乙烯是当今世界上耐腐蚀性能最佳材料之一，因此得“塑料王”之美称。属于工程塑料类，它能在任何种类化学介质长期使用，在原子能、国防、航天、电子、电气、化工、机械、仪表、建筑、纺织、金属表面处理、制药、医疗、食品、冶金冶炼等工业中广泛用作耐高低温、耐腐蚀材料，绝缘材料，防粘涂层等，使成为不可取代的产品。

聚四氟乙烯的优点

耐高低温-180°C~250°C。

耐腐蚀一对大多数化学药品和溶剂，表现出惰性、能耐强酸强碱、水和各种有机溶剂。耐化学腐蚀和耐候性，除融化的碱金属外，聚四氟乙烯几乎不受任何化学试剂腐蚀。

高润滑一是固体材料中摩擦系数最低者。不粘附一是固体材料中最小的表面张力，不粘附任何物质。无毒害一具有生理惰性，作为人工血管和脏器长期植入体内无不良反应。

PTFE分解温度为415°C，所以要特别注意安全防护并防止聚四氟乙烯接触明火。值得注意的是论上聚四氟乙烯可在-180°C-250°C长期使用，但是实际上具体产品在使用中受压力、介质、运动等化，实际使用温度范围往往在-160和+150范围内。



Alias: PTFE, Teflon, Teflonteflon, Teflon, F4, plastic king, tetrafluoroethylene.

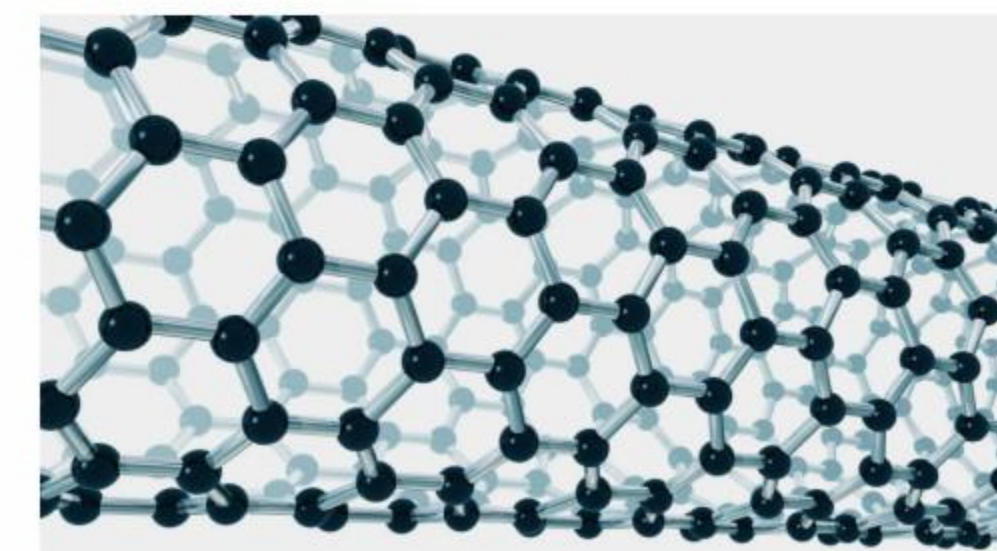
Polytetrafluoroethylene is one of the best corrosion-resistant materials in the world today, so it is known as the "Plastic King". It belongs to engineering plastics. It can be used in any kind of chemical medium for a long time. It can be used in nuclear energy, national defense, aerospace, electronics, electrical, chemical, machinery, instrumentation, construction, textile, metal surface treatment, pharmaceutical, medical, food, metallurgy and smelting industries. It is widely used as high and low temperature resistant, corrosion resistant material, insulating material, anti-stick coating, etc., making it an irreplaceable product.

Advantages of PTFE

High and low temperature resistance-180°C~250°C.

Corrosion resistance is a pair of most chemicals and solvents, showing inertness, resistance to strong acids and alkalis, water and various organic solvents. Chemical resistance and weather resistance. Except for molten alkali metals, PTFE is hardly corroded by any chemical reagents. High lubrication is the lowest friction coefficient among solid materials. Non-adhesion is the smallest surface tension in solid materials and does not adhere to anything. Non-toxic and physiologically inert, as artificial blood vessels and organs implanted in the body for a long time without adverse reactions.

The decomposition temperature of PTFE is 415°C, so special attention should be paid to safety protection and prevent PTFE from contacting open flames. It is worth noting that in theory PTFE can be used for a long time at -180°C-250°C, but in fact, specific products are subject to pressure, media, and movement during use, and the actual use temperature range is often between -160 and +150. Inside.





增强四氟RPTFE
Strengthen the four fluorine

PTFE具有优异的耐热性、耐药品性、非粘着性和耐气候性，但是由于PTFE的线膨胀系数大、尺寸稳定性差、硬度低、耐磨耗性差，在较大的负荷下表现出较大的“冷流”，因此PTFE的缺陷限制了其应用。为了克服这些缺点，提高其综合性能，并根据不同使用要求，可加入适量的填充剂进行改性。以求在保持其低摩擦的同时，获得优良的耐磨性及高强度、高刚度和尺寸稳定性。

常用填充剂有：

玻璃纤维、碳纤维、碳粉、石墨、二硫化铝硅粉、聚苯酯、对位聚苯（PPL）、聚酰亚胺及金属填充剂等等。这些填料能够改进PTFE产品的力学性能，摩擦磨损性能，得到性能更加优良的产品。

Reinforced polytetrafluoroethylene

PTFE has excellent heat resistance, chemical resistance, non-adhesion and weather resistance, but due to its large linear expansion coefficient, poor dimensional stability, low hardness, and poor wear resistance, it exhibits performance under larger loads Larger "cold flow", so the defects of PTFE limit its application. In order to overcome these shortcomings, improve its comprehensive performance, and according to different requirements, you can add an appropriate amount of filler to modify. In order to obtain excellent wear resistance and high strength, high rigidity and dimensional stability while maintaining low friction.

Common fillers are:

Glass fiber, carbon fiber, carbon powder, graphite, aluminum disulfide silicon powder, polyphenylester, para-polyphenyl (PPL), polyimide and metal fillers, etc. These fillers can improve the mechanical properties, friction and wear properties of PTFE products, and obtain products with better performance.

填充改性材料对PTFE的增强作用
Strengthening effect of filling modified materials on PTFE

填充物 Filler	主要改善性能 Mainly improving performance
玻纤 Fiberglass	提高压缩强度、刚度、耐磨性、降低冷流、抗有机溶剂 Improve compression strength, stiffness, wear resistance, reduce cold flow, and resist organic solvents
碳 Carbon	提高拉伸强度、硬度、耐磨性、耐高温、导热性 Improve tensile strength, hardness, wear resistance, high temperature resistance, and thermal conductivity
碳纤 Carbon fiber	提高耐压缩蠕变性、抗冷流、耐高温、提高导热性 Improve compression creep resistance, cold flow resistance, high temperature resistance, and thermal conductivity
石墨 Graphite	提高润滑性、降低摩擦系数、提高导热性 Improve lubricity, reduce friction coefficient, and improve thermal conductivity
青铜 Bronze	提高拉伸强度、硬度、耐磨性、热传导率、降低冷流性 Improve tensile strength, hardness, wear resistance, thermal conductivity, and reduce cold flow resistance
聚苯酯 Polybenzoate	提高抗蠕变性、尺寸稳定性、耐高温 Improve creep resistance, dimensional stability, and high temperature resistance
不锈钢 Stainless steel	提高传热系数、降低冷流、耐化学腐蚀 Improve Heat transfer coefficient, reduce cold flow and resist chemical corrosion



PTFE BALL
PTFE球体

PTFE WELD BALL VALVE SEALS
PTFE焊接球阀密封圈



PTFE O-RINGS
PTFE O型圈



PTFE STEM PACKING
PTFE 阀杆填料

注：提醒大家填充材料成分不是越多越好，不同的填充材料有不同的黄金配比量。

Note: Remind everyone that the composition of the filling material is not as much as possible. Different filling materials have different proportions of gold.



RPTFE STEM V-PACKING
RPTFE 阀杆V型填料



PTFE FLANGE GASKET
PTFE 法兰垫片



PTFE SCRAPER
PTFE 刮板



PTFE SEAT SEAL
PTFE 阀座密封圈



PTFE THREE-PIECE BALL VALVE SEAT
PTFE 三片式球阀阀座



PTFE ANGLE SEAT VALVE DISC
PTFE 角座阀阀瓣

产品介绍

PTFE产品一般由包覆层及嵌入物两部分组成。聚四氟乙烯作为包覆层有极佳的耐腐蚀作用，嵌入物为弹性较好的带或不带金属增强层的非金属密封材料，通常为石棉、橡胶等材质。该产品根据内芯结构不同，分不同类型，如石油、化工、制药及食品工业中的一些容器、管道、阀门连接，为保证物料清洁会采用四氟包覆垫片进行密封。它广泛应用于各种强酸、强碱、强氧化、氯气和不允许污染介质的密封。

product description

PTFE products are generally composed of two parts: a coating layer and an insert. PTFE as a coating has excellent corrosion resistance, and the insert is a non-metallic sealing material with or without a metal reinforcement layer with good elasticity, usually asbestos, rubber and other materials. The product is divided into different types according to the inner core structure, such as some containers, pipelines and valve connections in the petroleum, chemical, pharmaceutical and food industries. In order to ensure the cleanliness of the material, a tetrafluoro-coated gasket will be used for sealing. It is widely used in the sealing of various strong acids, strong alkalis, strong oxidants, chlorine gas and media that are not allowed to pollute.

01 可靠的密封性

橡胶+铁氟龙整体复合，结构稳定，密封性能好，与纯橡胶一致。
Rubber + Teflon composite, stable structure, good sealing performance, consistent with pure rubber.

03 更长的使用寿命

使用寿命是纯橡胶垫片的数倍，即使苛刻工况也可反复使用。
The service life is several times that of pure rubber gaskets, and it can be used repeatedly even under severe conditions.

02 优异的耐化学性能

几乎耐一切介质，耐CIP清洗液，不会腐蚀，溶胀，产品稳定耐用。
Almost resistant to all media, resistant to CIP cleaning fluid, Will not corrode, swell, the product is stable and durable

04 食品级，可信赖

SGS认证，符合4806.11国家食品安全标准，通过塑化剂检测。
SGS certification, in line with 4806.11 national food safety standards, and passed plasticizer testing.

日本大金M系列纯 PTFE悬浮树脂

	表观密度 g/ml	平均粒径 μm	比重	收缩率 %	拉伸强度 MPa	延伸率 %	BDV Kv/0.1t
M-18M	0.40	40	2.17	3.4	54	390	11.2
-18FM	0.35	25	2.17	3.8	56	420	13.0
-221M	0.58	172	2.16	2.7	40	350	
-531M	0.93	500	2.16	3.0	36	330	3.0
-532M	0.86	400	2.16	3.2	40	350	6.0
-532CM	0.82	460	2.16	2.5	41	350	4.9
-111M	0.35	40	2.16	3.9	44	450	13.5
-533M	0.79	350	2.16	3.2	43	350	8.0
-112M	0.42	40	2.15	3.9	45	420	13.0
-139	0.90	400	2.17	3.0	37	390	9.0



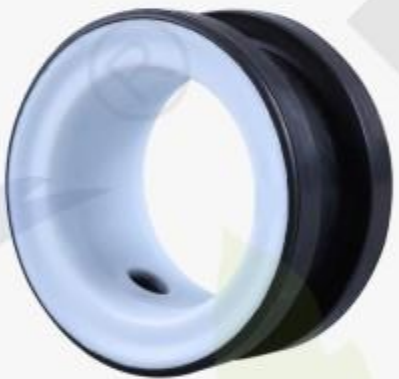
SPLIT DIAPHRAGM VALVE DIAPHRAGM
分体式隔膜阀膜片



COMPOSITE FLANGE SHEET
复合法兰片



QUICKLY INSTALL THE SEALING RING
四氟复合快装密封圈



FLUORINE-COATED BUTTERFLY VALVE SEALING RING
工业级蝶阀密封圈



PTFE COMPOSITE DIAPHRAGM
PTFE 复合膜片



SANITARY FLUORINE-COATED BUTTERFLY VALVE
SEALING RING
卫生级蝶阀密封圈



SPLIT DIAPHRAGM VALVE
DIAPHRAGM
分体式隔膜阀膜片



PEEK GASKET
PEEK垫片



PEEK BUSHING
PEEK轴套



PEEK SEAT SEAL
PEEK阀座密封圈



PEEK SCREW ASSEMBLY
PEEK螺丝组件



05 PCTFE CHLOROTRIFLUOROETHYLENE MATERIAL

PCTFE聚三氟氯乙烯材料

聚三氟氯乙烯是三氟氯乙烯的聚合物 简称:PCTFE

熔融温度213℃, 具有优良的化学稳定性、绝缘性和耐候性, 可在-196-125℃长期使用, 机械强度和硬度优于聚四氟乙烯, 制成薄膜则有较好透明度和较低透气速率。PCTFE是结晶性的高分子, 熔点为218.33℃, 密度为2.13g/cm³ (克/立方厘米)。



Chlorotrifluoroethylene is a polymer of Chlorotrifluoroethylene Abbreviation: PCTFE

The melting temperature is 213℃, and it has excellent chemical stability, insulation, and weather resistance. It can be used for a long time at -196-125℃, with better mechanical strength and hardness than polytetrafluoroethylene. When made into a thin film, it has better transparency and lower gas permeability. PCTFE is a crystalline polymer with a melting point of 218.33℃ and a density of 2.13g/cm³ (g/cm³).



06 DEVLON MATERIALS

德威龙材料

Devlon密封圈, 让你的设备更加安全可靠!

在各种机械设备中, 密封圈是起到重要作用的一个部件。

它可以隔离机械设备内外的介质, 防止泄漏, 机器的安全和可靠运行。而Devlon密封圈作为一种新型的密封材料, 被广泛应用于各种领域, 成为机械设备密封的选择!

Devlon密封圈作为一种新型的密封材料, 具备优异的耐磨性、耐高温性、耐腐蚀性、抗压性等特点, 可以广泛应用于各种机械设备中, 为设备的安全可靠运行提供了有力的。

一、什么是Devlon密封圈?

Devlon密封圈是一种由聚酰亚胺材料制成的密封圈, 它具有极高的耐磨性、耐高温性、耐腐蚀性、抗压性等特点。它的密封性能非常好, 可以有效地防止介质泄漏。同时, 它的耐用性也非常出色, 可以长时间使用而不会出现损坏或老化。

二、Devlon密封圈的应用领域

1. 化工行业: 在各种化工设备中, 由于介质的特殊性, 常常需要使用高耐腐蚀的密封圈。而Devlon密封圈正是具备这种特性的材料, 可以广泛应用于酸、碱、盐等介质的密封。
2. 石油化工行业: 在炼油、天然气开采等领域, 常常需要使用耐高温、耐压的密封圈。而Devlon密封圈具备极高的耐温性和耐压性, 可以设备在高温、高压环境下的安全运行。
3. 电力行业: 在发电、输电、变电等各个环节, 都需要使用各种密封圈。而Devlon密封圈具备优异的耐磨性和耐高温性, 可以应用于各种电力设备中, 设备的安全可靠运行。
4. 其他领域: 除了以上三个领域, Devlon密封圈还可以应用于食品、医药、航空、航天各个领域。它的优异性能可以为各种机械设备提供更加安全可靠的。

□□ Devlon密封圈的优点

1. 耐磨性: Devlon密封圈具备极高的耐磨性, 可以长时间使用而不会出现损坏或老化。
2. 耐高温性: Devlon密封圈可以在高温环境下使用, 不会出现膨胀、变形等现象。
3. 耐腐蚀性: Devlon密封圈可以应对各种腐蚀介质, 不会因为介质的特殊性而损坏。
4. 抗压性: Devlon密封圈具备优异的抗压性能, 可以应对各种压力环境下的使用。
5. 密封性: Devlon密封圈的密封性能非常好, 可以有效地防止介质泄漏, 设备的安全运行。



Devlon sealing ring makes your device safer and more reliable!

In various mechanical equipment, the sealing ring is an important component that plays an important role.

It can isolate the media inside and outside the mechanical equipment, prevent leakage, and ensure the safe and reliable operation of the machine. As a new type of sealing material, Devlon sealing rings are widely used in various fields and have become the choice for mechanical equipment sealing!

Devlon sealing ring, as a new type of sealing material, has excellent wear resistance, high temperature resistance, corrosion resistance, compression resistance, and other characteristics. It can be widely used in various mechanical equipment, providing strong support for the safe and reliable operation of equipment.

1* What is a Devlon sealing ring?

Devlon seal ring is a kind of seal ring made of polyimide material, which has high wear resistance, high temperature resistance, corrosion resistance, compression resistance and other characteristics. Its sealing performance is very good, which can effectively prevent medium leakage. At the same time, its durability is also excellent, and it can be used for a long time without damage or aging.

2* Application fields of Devlon sealing rings

1. Chemical industry: In various chemical equipment, high corrosion resistant sealing rings are often required due to the special nature of the medium. And Devlon sealing rings are materials with this characteristic, which can be widely used for sealing acid, alkali, salt and other media.
2. Petrochemical industry: In fields such as oil refining and natural gas extraction, it is often necessary to use high temperature and pressure resistant sealing rings. The Devlon sealing ring has extremely high temperature and pressure resistance, which can ensure the safe operation of the equipment in high temperature and high pressure environments.
3. Power industry: Various sealing rings are required in various links such as power generation, transmission, and transformation. The Devlon sealing ring has excellent wear resistance and high temperature resistance, which can be applied to various power equipment for safe and reliable operation.
4. Other fields: In addition to the above three fields, Devlon sealing rings can also be applied in various fields such as food, medicine, aviation, aerospace, etc. Its excellent performance can provide safer and more reliable services for various mechanical equipment.

3* Advantages of Devlon sealing rings

1. Wear resistance: Devlon sealing rings have extremely high wear resistance and can be used for a long time without damage or aging.
2. High temperature resistance: Devlon sealing rings can be used in high-temperature environments without expansion, deformation, and other phenomena.
3. Corrosion resistance: Devlon sealing rings can withstand various corrosive media and will not be damaged due to the special nature of the media.
4. Compression resistance: Devlon sealing rings have excellent compression resistance and can withstand various pressure environments.
5. Sealing performance: The sealing performance of the Devlon sealing ring is very good, which can effectively prevent medium leakage and ensure the safe operation of the equipment.

07 ING-MOLON MATERIAL&PI POLYIMIDE

钼龙材料&PI聚酰亚胺

二硫化钼与尼龙的复合材料 简称:ing钼龙(ing-molon)

含二硫化钼粉末可在不影响未改性铸型尼龙的耐冲和耐疲劳性能的同时, 提高其承载能力和耐磨性, 它非常广泛地用来制造齿轮、轴承、星轮和套。铸型尼龙广泛代替机械设备的耐磨部件, 代替铜和合金作设备的耐磨易损件。如轴套、轴瓦、衬套、衬板、齿轮、蜗轮蜗杆导轨、活塞环、密封圈、滑块、球碗、叶轮、叶片、凸轮、螺母、阀片、管道、填料函、齿条、皮带轮、泵转子等。

聚酰亚胺(Polyimide,缩写PI) 产品的物理特性与产品运用:

- 1.耐超高温和超低温: 使用温度 -272 ~ +360°C, 瞬间使用高温可达500°C。
- 2.耐磨性能: 无润滑条件的PV临界值是一般工程塑料的10倍以上, 可抵抗较强的冲击和摆动磨损。
- 3.耐变形和蠕变能力: 高温下不会软化, 可承受高负载。在300°C, 18.2MPa下1000小时的蠕变量仅为0.6%。
- 4.耐等离子和各种射线。
- 5.超真空应用: 具有优异的密封性, 可达到10-10Torr,具优异的机械加工性能。

广泛用于飞机, 航空、汽车、办公设备 电子电与设备、科学仪器、工业机械和生产设备等需要耐高温、耐磨、密封、尺寸稳定性和变形不断裂的应环境, 产品包含全封环, 止推垫片, 滑动轴承, 真空泵叶片, 阀座, 齿轮等。

PI与聚四氟乙烯PTFE复合产品

以15%聚四氟乙烯PTFE与聚酰亚胺PI树脂模压成型, 提高产品的耐磨性, 尺寸更稳定。

典型应用主要包括高温密封件、支撑环、导向耐磨环、压缩机活塞环、耐热齿轮等。



Composite material of Molybdenum disulfide and nylon, called ing molyn for short

The powder containing Molybdenum disulfide can improve the bearing capacity and wear resistance of unmodified cast nylon without affecting its impact resistance and fatigue resistance. It is widely used to manufacture gears, bearings, star wheels and sleeves. Cast nylon is widely used as a replacement for wear-resistant parts of mechanical equipment, replacing copper and alloys as wear-resistant and vulnerable parts of equipment. Such as shaft sleeves, bearing shells, bushings, lining plates, gears, worm gear roller copper guide rails, piston rings, sealing rings, sliders, ball bowls, impellers, blades, cams, nuts, valve plates, pipelines, stuffing boxes, racks, pulleys, pump rotors, etc. Due to the simple process and mold structure, the manufacturing cost is relatively low, making it an ideal material to replace copper, stainless steel, aluminum alloy, polytetrafluoroethylene, and other materials.

Physical properties and product application of polyimide (PI) products:

1. Resistance to ultra-high temperature and ultra-low temperature: The operating temperature is -272~+360°C, and the instantaneous high temperature can reach 500°C.
2. Wear resistance: The critical value of PV without lubrication is more than 10 times that of general engineering plastics, which can resist strong impact and shaking wear.
3. Resistance to deformation and creep: It will not soften at high temperatures and can withstand high loads. The creep deformation at 300°C and 18.2MPa for 1000 hours is only 0.6%.
4. Resistance to plasma and various radiation.
5. Ultra vacuum application: It has excellent sealing performance, reaching 10-10 Torr, and excellent mechanical processing performance.

Guanghe Industrial Aircraft, Aviation, Automotive Office Equipment, Electronics and Equipment Zhao Xue specializes in grinding and sealing to meet the needs of industrial machinery and production equipment, with no severe deformation. The product package is fully sealed, including thrust hot plate sliding bearings, vacuum pump blades, valve seats, gears, etc.

PI and PTFE composite products

At 15% Polytetrafluoroethylene PTFE and polyimide PI resin are molded to improve the wear resistance of the product and make the size more stable.

Typical applications mainly include high-temperature seals, support rings Guide wear-resistant rings, compressor piston rings, heat-resistant gears, etc.

08 PTFE SEAT SERIES

PTFE阀座系列

Comparison Value Of Ball Valve Sealing Ring Selection 球阀密封圈选型对比数值

名称	使用温度	使用性能
聚四氟乙烯PTFE	-20°C-120°C	耐腐蚀 耐酸碱
德威龙DEVLON	125°C	耐高温 耐高压2500LB
聚醚醚酮PEEK	250°C	耐高温 耐酸碱 耐高压3000LB
钼龙MOLON	105°C	耐高压1500LB
对位聚苯PPL	280°C	耐高温 耐酸碱
碳纤维CPTFE	220°C	耐高温 耐酸碱
聚苯酯POB	240°C	耐高温 耐酸碱
玻纤四氟RPTFE	-20°C-150°C	耐磨 耐酸碱
德国TFM 3M 1700 1600	-80°C-180°C	耐高低温 防腐蚀 耐酸碱
聚三氟氯乙烯PCTFE	-196°C-125°C	耐低温 耐酸碱
聚甲醛POM	105°C	耐高压2000LB
日本大金M1111	-50°C-180°C	耐高低温 耐酸碱 防腐蚀
尼龙	105°C	耐高温 耐高压1000LB

Valve Seat Material Selection Guide-Material-specific Formula Correspondence Table 阀座材料选择指南-材料专用配方对应表

FDR SPTFE	白色	FDR PTFE -纯料
FDR MPTFE	白色	FDR PTFE-改性纯料
FDR UPTFE	白色	FDR PTFE-超改性纯料
FDR AD01,02	白色	FDR PTFE+玻纤混合物
FDR H1	黑色	FDR PTFE+软碳
FDR H3	黑色	FDR PTFE-超改性料+软碳
FDR C1	黑色	FDR PTFE+碳纤
FDR B	米色	FDR PTFE+聚苯脂
FDR I	黑色	FDR PTFE+石墨
FDR S1	灰色	FDR PTFE+不锈钢
FDR L	棕色	FDR PTFE+对位聚苯

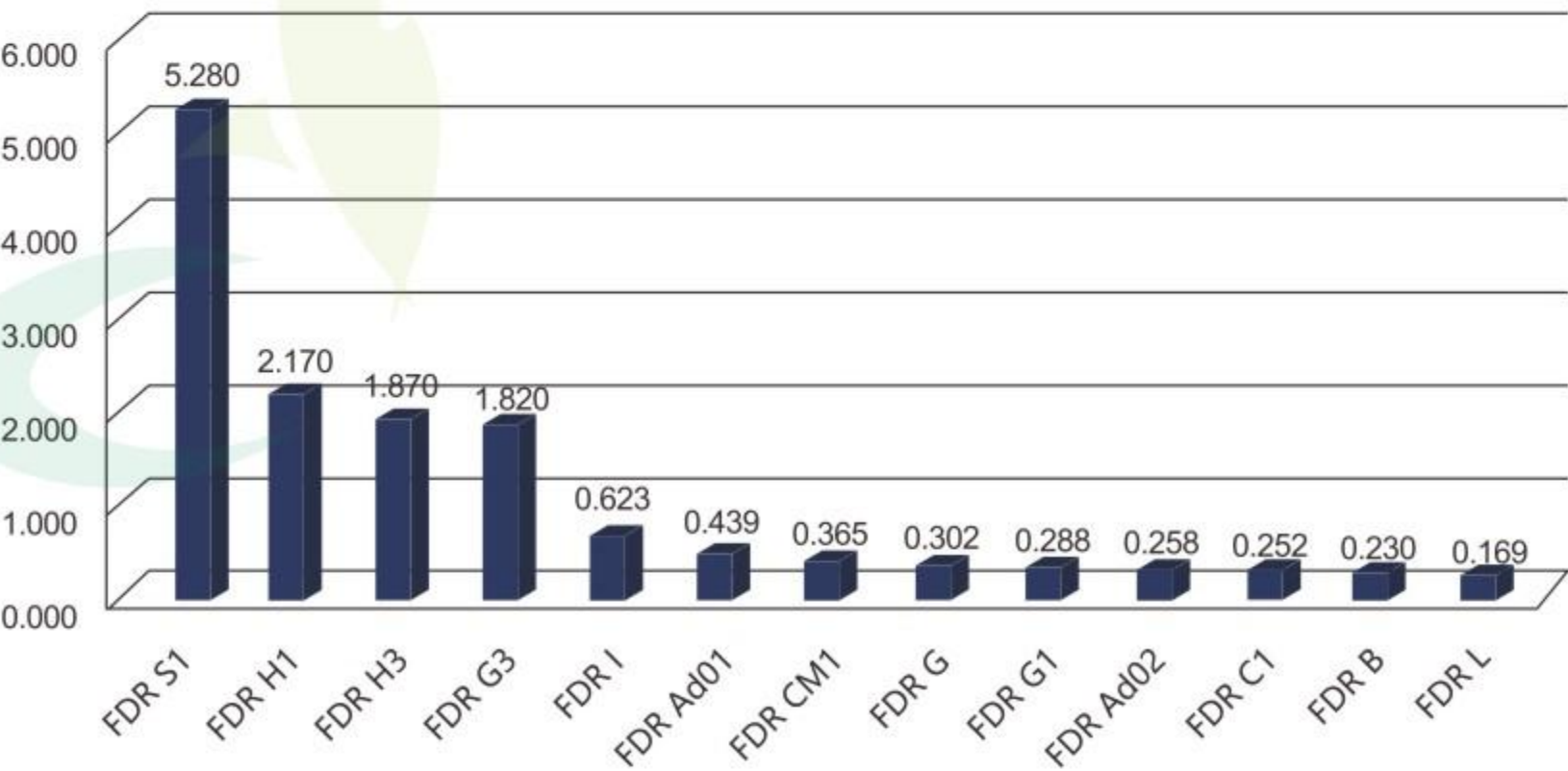
Seat Material Selection Guide - Material Properties Correspondence Table
阀座材料选择指南-材料性能对应表

阀座系列PTFE 复合材料-力学性能 (ASTM D4894)

型号	SPTFE	MPTFE	UPTFE	AD01	AD02	H1	H3	C1	B	S1	I	L
颜色	白色	白色	白色	白色	白色	黑色	黑色	黑色	米色	灰色	黑色	棕色
比重(g/cm³)	2.134	2.145	2.151	2.15	2.22	2.07	2.00	2.07	1.946	3.25	2.05	1.93
拉伸强度(mps)	36.83	33.99	35.1	19.01	16.34	12.34	15.91	30.52	19.37	20	15	23.05
断裂伸长率(%)	420.80	488.03	505.4	331.5	426.7	262.3	261	363.15	345.94	250	200	249.03
邵氏硬度	58	58	58	62	60	64	66	64	63	66	60	60
收缩率	2.60%	2.92%	4.16%	2.11%	1.87%	2.5%	3.9%	2.0%	2.5%	2.5%	2.0%	3.5%
摩擦系数	-	-	-	0.183	0.184	0.169	0.212	0.155	0.166	0.290	0.177	0.107

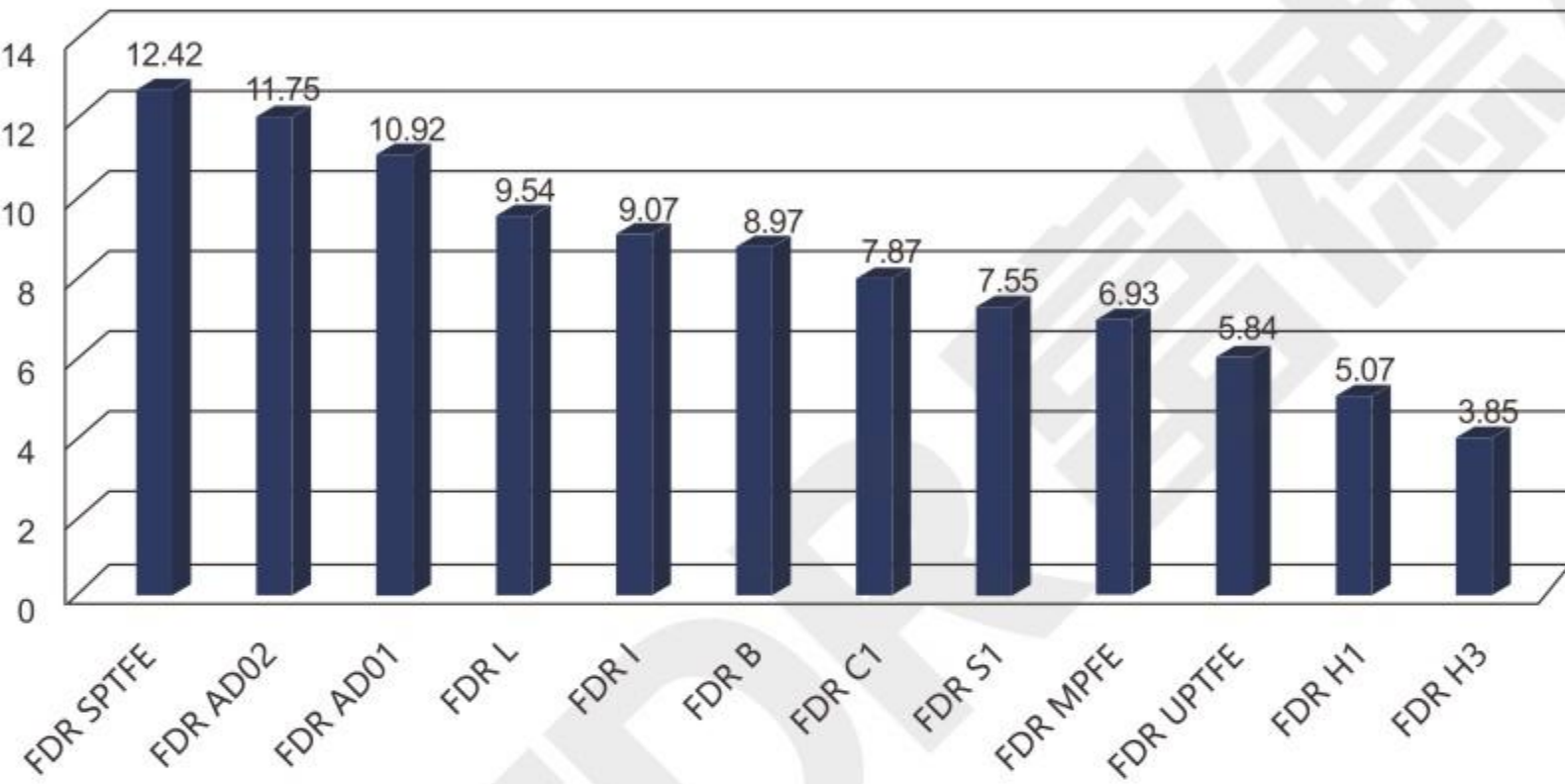
Valve Seat Series PTFE Composites - Wear Resistance
阀座系列 PTFE 复合材料-耐磨性能

不同产品型号的阀座材料的磨损量
(%, 588N,2.5h,23°C)

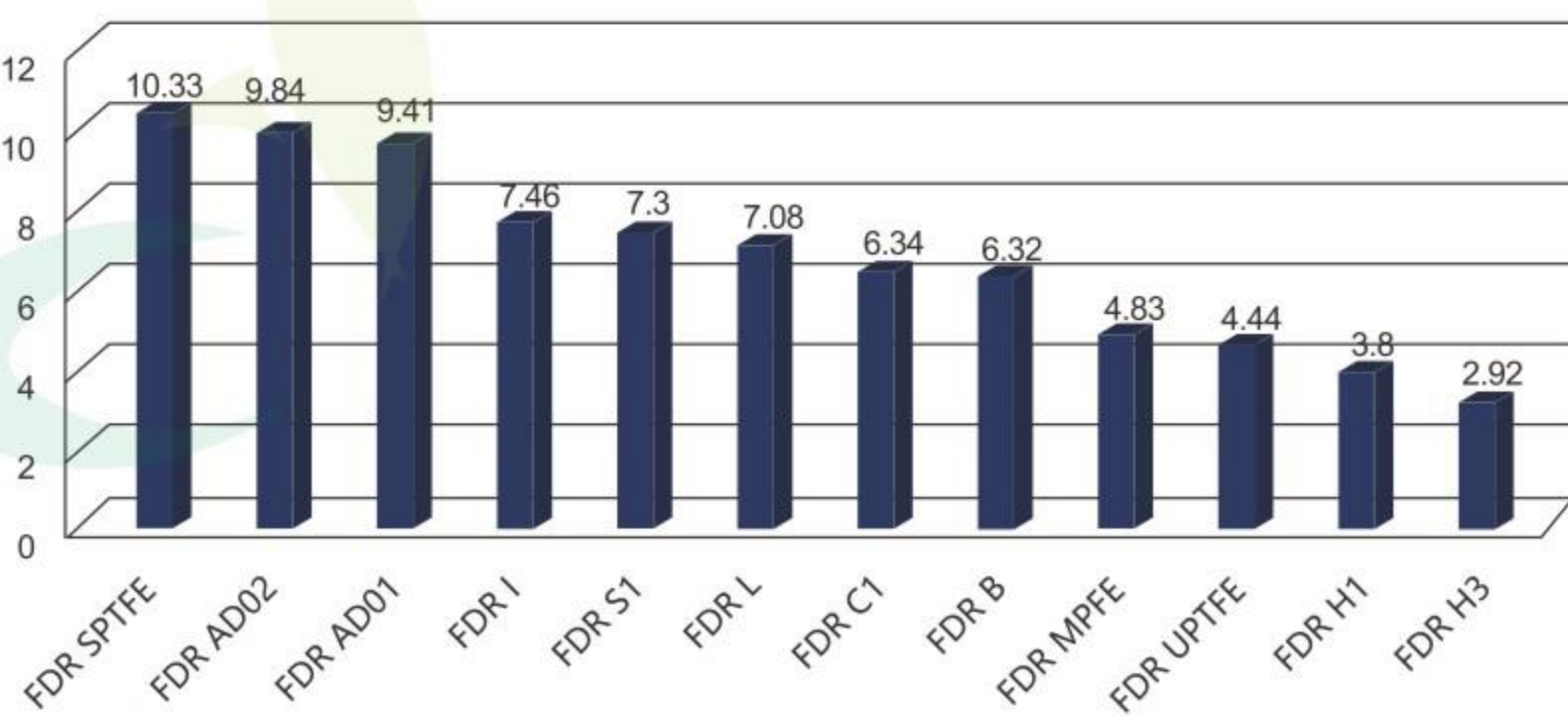


Seat Series PTFE Composite - Pressure Resistance
阀座系列 PTFE 复合材料-耐压性能

不同产品型号的阀座材料的全变形
(%, ASTM-D621,24h,23°C)



不同产品型号的阀座材料的永久变形
(%, ASTM-D621,24h,23°C)

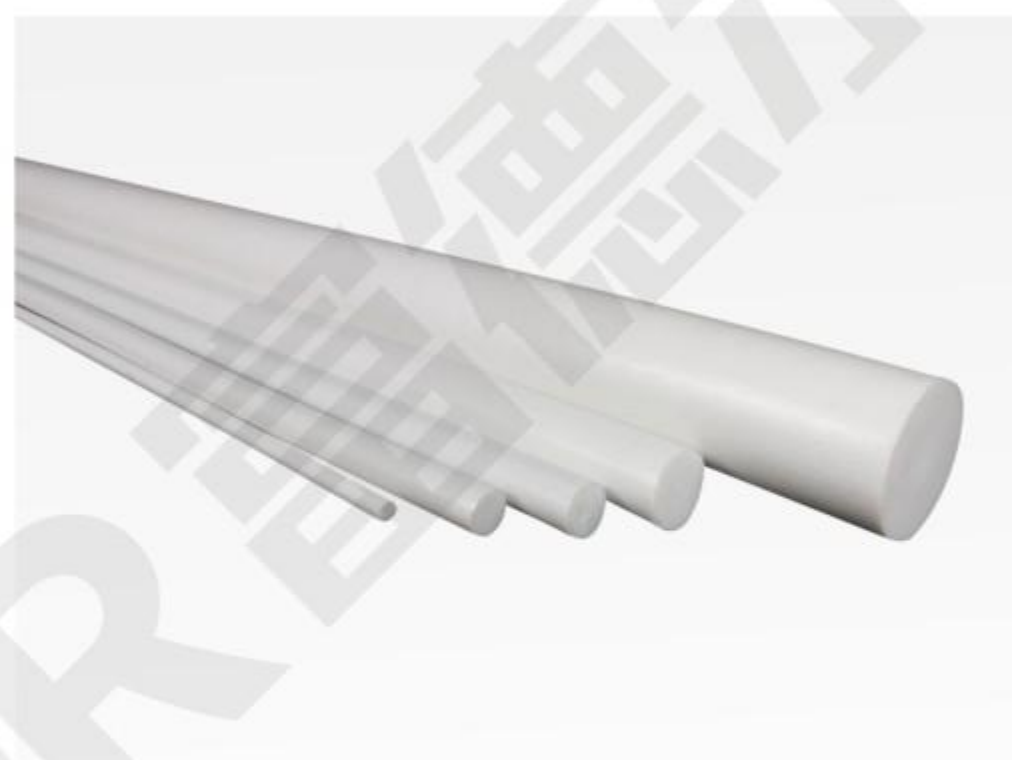


注：本说明书中的以上数据均准确可靠，但并不意味Itaflon公司承担任何担保和责任，该技术资料表并非免除客户通过自己的质控程序对本产品的适合性的品质。

CUSTOMIZE NON-STANDARD PARTS 定制非标件



PTFE SEAT
PTFE 管



PTFE SEAT
PTFE 棒



售后服务和质量保证承诺

随着国家市场经济的深入发展，市场竞争日趋激烈，广大用户对产品的要求也越来越高，并且对售后服务方面的要求也越来越多，为此，我公司质量管理部门为适应市场发展的要求，专门设立了售后服务组、配备了专职服务人员负责处理我公司产品售后服务事宜。同时我公司在内部质量管理方面也作出了多方努力，获得了ISO9001质量体系认证和国家压力管道特种设备制造许可证，为此我公司完全可以做到：

- 一、产品配发检验合格证书和说明书，以确保用户能正确安装适用我公司产品。
 - 二、我公司保证出厂的产品均按有关国际标准生产和检验，不合格的产品绝不出厂。保证严格履行、兑现产品的四包，严格执行国家工业产品售后服务有关规定，对出厂产品自发货日起的十二个月内，在产品说明书规定的正常操作条件下我公司将负责质保期内质量完好。
 - 三、如用户对我公司产品提出的质量异议，我公司保证在接到用户提出异议后2小时内作出处理意见。若需要现场解决的，保证派出专业技术服务人员，并做到质量问题不解决服务人员不撤离。对每件用户反馈的产品质量问题及处理结果我公司将存档。
- 以上三点是我公司对售后服务的承诺。竭诚欢迎广大用户指导修正，请提出宝贵意见，参照改进。真诚希望我们之间合作愉快。

