

BOILPEAK SEALS



O-RING

About Us

BoilPeak Seals Technology Co., Ltd. is established in 2014, specializes in the R&D, production, and sales of O-rings and related sealing products. We are equipped with advanced technologies and hold expertise in high-end sealing manufacturing processes.

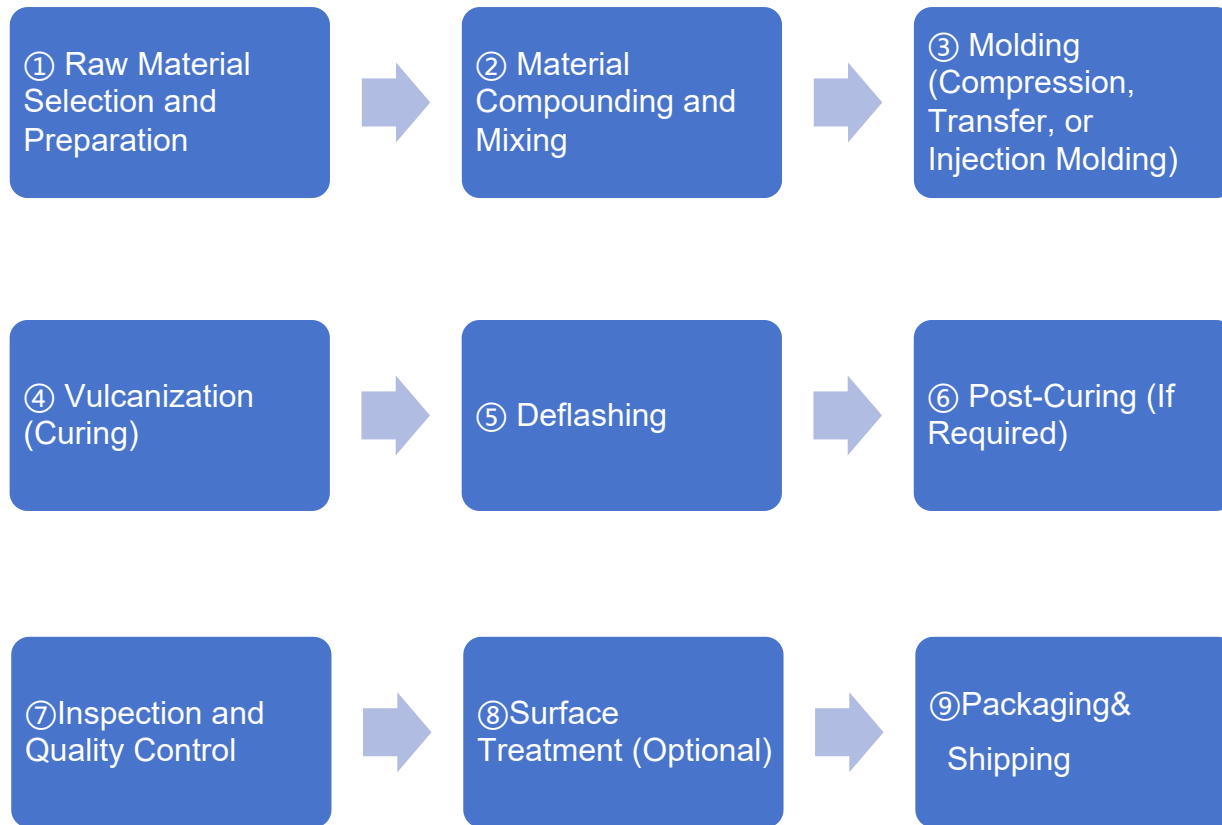
Our 20,000m² facility includes a cutting-edge Technology Center, modern R&D laboratories, and fully equipped production workshops. The clean production area spans 4,500m², comprising 4,000m² of Class 1000 and 500m² of Class 100 cleanrooms, ensuring a highly controlled and contamination-free manufacturing environment.

With over a decade of industry experience, BoilPeak is committed to delivering innovative, high-performance sealing solutions tailored to meet the diverse needs of customers worldwide.

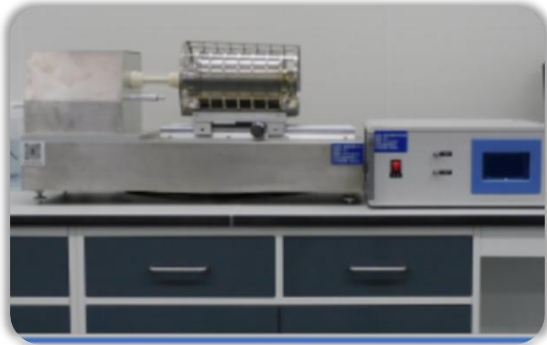
BoilPeak —your trusted one-stop partner for superior sealing solutions.



Production Process of O-Rings



Advanced Laboratories&Testing Equipments



Thermal Expansion Analysis Equipments



Tensile Testing Equipment



Rheometer



Shore Hardness Tester



Mooney Viscosity Tester



Compression Stress Relaxation Tester

O-Rings

O-Ring Material Properties Table

Material	Temperture Range (°C)	Hardness (Shore A)	Key Features	Chemical Resistance	Key Advantages	Key Limitations	Applications
NBR	-40 to +120	40–90	Good oil and fuel resistance, cost-effective, flexible at low temps	Good (oils, fuels)	Oil/fuel resistance, cost-effective	Poor ozone/sunlight resistance	Automotive fuel systems, hydraulic seals, general-purpose O-rings
FKM	-26 to +230	55–90	High temperature and chemical resistance, long service life, low permeability	Excellent (chemicals, oils, fuels)	High-temp & chemical resistance	Expensive, limited low-temp flex	Aerospace, automotive, chemical processing, high-temperature seals
SIL	-60 to +230	30–80	Wide temp range, excellent flexibility, food and medical grade options	Moderate	Excellent low/high temp flexibility	Poor abrasion, tear, and oil resistance	Food and medical equipment, HVAC, static seals in extreme temperatures
EPDM	-50 to +150	40–90	Outstanding resistance to weathering, ozone, steam, and polar fluids	Excellent (water, steam, weather, ozone)	Great for outdoor, water & steam applications	Poor oil & fuel resistance	Water systems, steam applications, brake systems, outdoor equipment
HNBR	-40 to +150	50–90	High mechanical strength, ozone and heat resistance better performance than NBR	Very Good (heat, oil, ozone)	Improved version of NBR durable	Costlier than NBR	Automotive, oil fields, air conditioning systems, high-performance engines
FVMQ	-60 to +200	50–80	Low temp flexibility, resistance to fuels and solvents, good for aviation	Good (fuel, oil, chemicals)	Fuel & oil resistance at low temps	Poor mechanical strength	Aerospace, fuel systems, automotive under-hood, extreme cold environments
AFLAS	-10 to +230	60–90	Excellent resistance to chemicals, heat, amines, acids, and steam	Excellent (acids, bases, amines, steam)	Excellent chemical & heat resistance	Limited low-temp performance	Chemical plants, oil & gas, steam service amine and acid resistance applications
FFKM	-15 to +327	60–90	Superior chemical, thermal, and plasma resistance, ideal for harsh environments	Excellent (nearly all chemicals)	Extreme temp and chemical resistance	Very expensive	Semiconductor, pharmaceutical, aerospace, aggressive chemical environments