

Spliced & Vulcanized O-Rings

Tailored Solution for Your Unique Applications

Hi-Tech Seals offers spliced and vulcanized O-rings in standard and square profiles, multiple cross sections, and various materials. We also offer quad ring profiles upon request. Customers can purchase our O-ring cord in cut lengths, splicing kits or through our in-house splice and vulcanizing service.

Spliced and vulcanized O-rings are made by cutting extruded cord stock into lengths and then joining them together (splicing). The ends are spliced together by applying a heat-activated bonding agent and placing them in a die for a specific length of time. This process forms a molecular connection to achieve a strong bond.

Spliced and vulcanized O-rings are excellent replacements for any unique-sized static O-ring, withstanding up to approximately 1,200 psi. They are used in various industries including, automotive, transportation, construction, food processing, power generation, and more.

Splice & Vulcanizing advantages:

- Strong consistent bond quality
- Available in a wide range of materials
- No tooling costs
- Quick turnaround times
- Ability to accommodate large diameters and custom, non-standard sizes.



Materials

Choose from a diverse range of high-performance rubber materials suitable for various applications. Common materials include but are not limited to:

- Nitrile
- Hydrogenated Nitrile
- Viton™/Fluorocarbon
- Aflas® FEPM
- Ethylene Propylene
- Neoprene/Chloroprene
- Silicone

Our material selection includes FDA-compliant materials to meet various industry-specific requirements. If you need additional or specific materials not listed above, please reach out to us for further assistance.



Spliced & Vulcanized O-Ring Tolerances

Our spliced and vulcanized O-rings are produced with strict attention to tolerances, ensuring a consistent and reliable seal. See below for sizing and tolerances information.

O-Ring Cord Cross-Section Tolerances (RMA E1)

O-ring Series	Imperial		Metric	
	C/S	Tolerances	C/S	Tolerances
0	0.070	± 0.008	1.78	± 0.20
100	0.103	± 0.010	2.62	± 0.25
200	0.139	± 0.010	3.53	± 0.25
300	0.210	± 0.014	5.33	± 0.36
400	0.275	± 0.016	6.99	± 0.41

O-Ring Spliced Diameter Tolerances*

Imperial		Metric	
Diameter	Tolerances	Diameter	Tolerances
0.00 to 3.18	± 0.080	0.0 to 79.6	± 2.00
3.18 to 5.09	± 0.090	79.6 to 127.3	± 2.30
5.09 to 7.96	± 0.100	127.3 to 200.5	± 2.50
7.96 to 12.73	± 0.110	200.5 to 318.3	± 2.90
12.73 to 20.05	± 0.130	318.3 to 509.3	± 3.20
20.05 to 31.83	± 0.140	509.3 to 795.8	± 3.60
Above 31.83	± 0.160	Above 795.8	± 4.00

*Diametrical tolerances are converted over from RMA S2 extrusion spliced length tolerances.

Beyond O-Rings

Our splice and vulcanizing expertise extends beyond O-rings to gaskets and other sealing products. All vulcanized products benefit from the same precision that we apply to our vulcanized O-rings. This ensures a high-quality, superior bond suited for diverse applications. Our range of advanced vulcanizing capabilities includes, but is not limited to:

- Extruded Profiles
- Gaskets
- Split Rotary Seals
- Rubber-to-metal Bonding
- Encapsulated O-rings
- Industrial Tubing
- Continuous Molded Products
- Other bonding services

Commitment to Customer Service

Customers choose our splice and vulcanizing services not only for quality products; they also rely on our trusted team to deliver value and support their business goals. Our team of professionals is prepared to provide you with expert technical support, quick response times, and assistance tailored to your unique challenges and requirements. By leveraging our industry-leading turnaround times, we ensure your projects remain seamlessly on track.

For more information about our splice and vulcanizing services or to request a quote, please email us today at info@hitechseals.com.

