

ULTRA™ and HiFluor™ FFKM Spliced O-Rings



Large Diameter FFKM O-rings:

Parker O-Ring Division, the leader in cutting edge elastomer technology, has been manufacturing FKM spliced O-rings to stringent aerospace standards for 17 years. Utilizing years of space flight sealing experience, the division has now perfected the bonding technology on FFKM materials FF200-75, FF202-90, and FF582-90.

Through a proprietary splicing process, Parker O-Ring Division is now able to offer most ULTRA and HiFluor materials in any size. This unique methodology utilizes a fully vulcanized and cured splice. This provides a superior splice, allowing Parker to meet even your largest diameter needs.



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Benefits:

- Available with most ULTRA and HiFluor compounds
- No “maximum” restriction on diameter for spliced parts
- Minimum inside diameter of 25”
- Available in 0.139”, 0.210”, 0.275” standard cross-sections
- Available in both –UHP and non –UHP formats
- No tooling costs
- Fully vulcanized and cured splice resulting in strength indicating that of parent bulk material



ENGINEERING YOUR SUCCESS.

Spliced Parker FFKM Evaluation

Objective:

Parker O-Ring Division has conducted testing to establish tensile and elongation properties of single strand spliced FFKM samples in comparison with non-spliced single strand samples.

Methods:

All physical properties were gathered from single strand cord segments using ASTM D1414 test methodology.

Discussion:

The samples tested were FF102-75 and FF200-75. These materials were selected for initial splice testing since they are used across multiple markets. The tensile and elongation measurements were normalized to the non-spliced single strand material.

Conclusion:

Compounds FF102-75 and FF200-75 demonstrate great spliced tensile and elongation properties. The FF200-75 splice tensile strength was 96% of the original non-spliced single strand material, followed by FF102-75 which was 86% of the original non-spliced single strand. In testing, the strand rupture occurred perpendicular to the spliced area, indicating splice strength as strong as parent bulk material. There is no significant elongation difference between the spliced and non-spliced joints regardless of compound.

Availability

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| Inside Diameter (ID) Sizes & Tolerances ¹ | ID's start at 25.000" \pm .100 – .700* |
| Cross-Section | .139", .210" & .275" (ask us about other sizes) |
| Lead Times ² | |
| FF102-75, FF200-75, FF202-90, & FF500-75 | 2 weeks |
| FF302-75, FF350-75, FF352-75, FF370-75, FF580-75, FF582-90, V8545-75, & V8562-75 | 3 weeks |
| FF374-60, FF376-80, V3819-75, & V8581-90 | 4 weeks |

1) ID upper tolerance remains \pm .100 for all sizes but changes \pm .008 on the lower tolerance per 1 inch increase in diameter.

2) Check with a customer service representative for lead times on FFKM materials not listed above. Expedites are available upon request.

