

Hongzer 419PCS 32 Sizes Assortment Set

Hongzer 419PCS O-Ring Assortment Kit User Manual

Universal Rubber O Ring Kit with Box

1. PRODUCT OVERVIEW

The Hongzer 419PCS O-Ring Assortment Kit provides a comprehensive selection of O-rings for various sealing applications. This kit contains 419 pieces across 32 different sizes, made from high-quality rubber material, ensuring durability and a long service life. O-rings are essential components used to create a seal between two or more parts, preventing leakage of fluids or gases.

This assortment is designed for wide application in cylinders, automobiles, valves, chemical pipelines, rollers, and other mechanical systems requiring reliable sealing.

2. PACKAGE CONTENTS

Your Hongzer O-Ring Assortment Kit includes the following components, neatly organized in a durable storage box:

- 1 x Storage Box
- 419 x Rubber O-Rings in 32 assorted sizes. The specific breakdown is as follows:

O-Ring Size and Quantity Chart

Part Number	Nominal Size (ID * Thickness)	Quantity
R-01	3mm * 1.5mm	20pcs
R-02	4.4mm * 2mm	20pcs
R-03	5mm * 2mm	18pcs
R-04	7mm * 1.5mm	23pcs
R-05	10mm * 1.5mm	23pcs

Part Number	Nominal Size (ID * Thickness)	Quantity
R-06	13mm * 1.5mm	23pcs
R-07	10mm * 2.5mm	14pcs
R-08	11mm * 2.5mm	13pcs
R-09	13mm * 2.5mm	14pcs
R-10	14mm * 2.5mm	13pcs
R-11	16mm * 2.5mm	14pcs
R-12	18mm * 2.5mm	14pcs
R-13	19mm * 2.5mm	13pcs
R-14	21mm * 2.5mm	14pcs
R-15	22mm * 2.5mm	13pcs
R-16	18mm * 3.5mm	10pcs
R-17	20mm * 3.5mm	10pcs
R-18	22mm * 3.5mm	10pcs
R-19	23.5mm * 3.5mm	10pcs
R-20	25mm * 3.5mm	10pcs
R-21	26.5mm * 3.5mm	10pcs
R-22	28mm * 3.5mm	10pcs
R-23	30mm * 3.5mm	10pcs
R-24	31mm * 3.5mm	10pcs
R-25	33mm * 3.5mm	10pcs
R-26	34.5mm * 3.5mm	10pcs
R-27	36mm * 3.5mm	10pcs
R-28	38mm * 3.5mm	10pcs
R-29	41mm * 3.5mm	10pcs
R-30	44mm * 3.5mm	10pcs
R-31	47mm * 3.5mm	10pcs
R-32	50mm * 3.5mm	10pcs



Figure 2.1: The complete Hongzer 419PCS O-Ring Assortment Kit, showcasing the organized layout within its red storage box.

3. SETUP AND ORGANIZATION

The O-ring kit comes pre-organized in a durable plastic case with clearly labeled compartments for each size. This organization facilitates easy identification and selection of the correct O-ring for your application.

1. **Initial Inspection:** Upon receiving the kit, inspect the contents to ensure all O-rings are present and properly seated in their designated compartments according to the size chart on the lid.
2. **Familiarization:** Take a moment to familiarize yourself with the various sizes and their corresponding labels. The lid of the case features a detailed chart (refer to Figure 3.1) that lists the part numbers, nominal sizes (inner diameter and thickness), and quantities for each O-ring type.
3. **Storage:** Keep the kit closed when not in use to prevent O-rings from mixing or becoming contaminated. Store in a cool, dry place away from direct sunlight and extreme temperatures to preserve the material integrity.

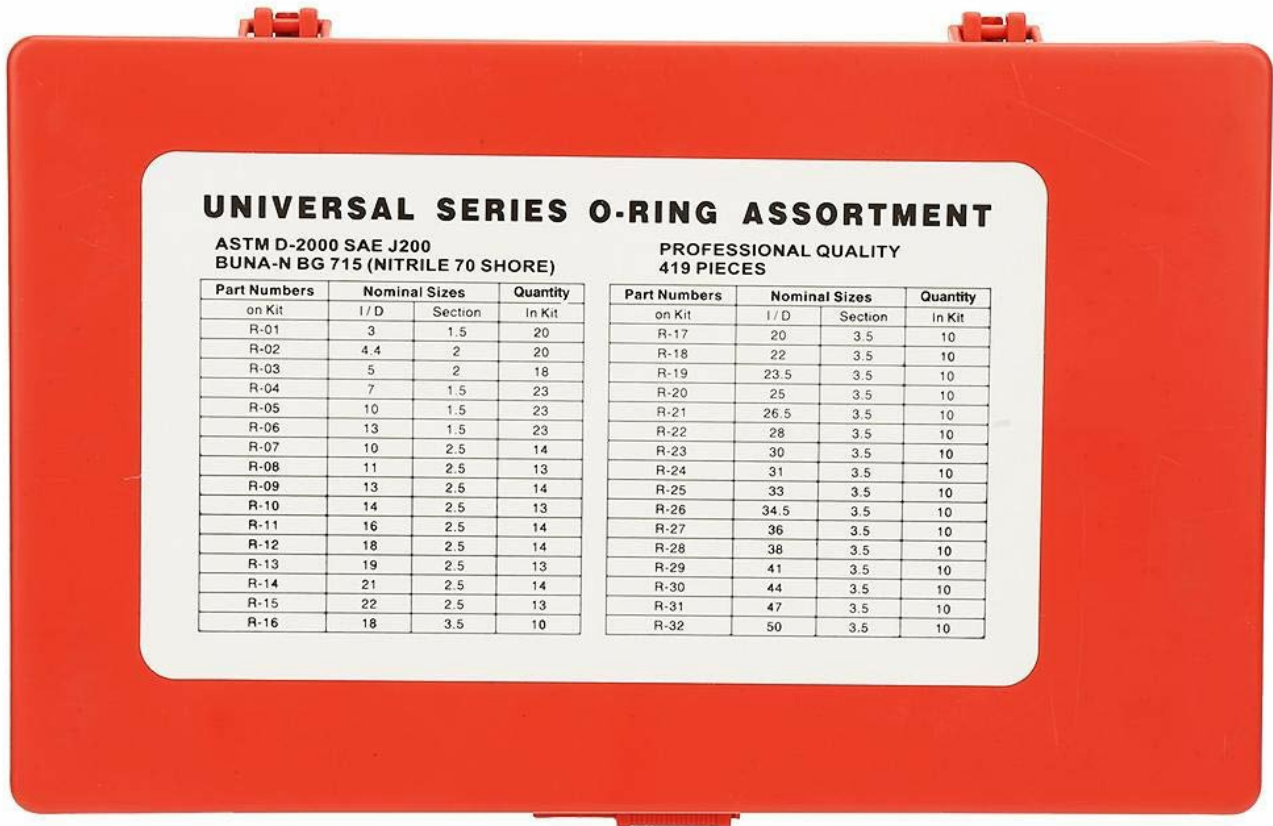


Figure 3.1: The lid of the O-Ring kit, displaying the comprehensive size chart for quick reference and identification of O-ring dimensions and quantities.

4. OPERATING AND USAGE GUIDELINES

O-rings function by being compressed in a gland between two mating surfaces, creating a seal. Proper selection and installation are crucial for effective sealing.

1. **Identify Application Needs:** Determine the specific requirements of your sealing application, including the dimensions of the groove or space where the O-ring will be seated, the type of fluid or gas to be sealed, and the operating temperature and pressure.
2. **Select Correct Size:**
 - Measure the inner diameter (ID) and cross-sectional thickness (CS) of the old O-ring (if replacing) or the groove dimensions.
 - Refer to the size chart on the kit lid or in Section 2 of this manual to find the O-ring that best matches your required dimensions. A slightly smaller ID than the groove diameter is often preferred to ensure a snug fit and proper compression.

3. **Inspect O-Ring:** Before installation, visually inspect the selected O-ring for any defects such as cuts, nicks, abrasions, or deformities. A damaged O-ring will not provide an effective seal.
4. **Lubrication (Optional but Recommended):** For easier installation and to prevent damage during assembly, a thin layer of compatible lubricant can be applied to the O-ring. Ensure the lubricant is compatible with both the O-ring material and the fluid being sealed.
5. **Installation:** Carefully install the O-ring into its groove. Avoid stretching or twisting the O-ring excessively, as this can cause permanent deformation and lead to seal failure. Ensure it sits flat and evenly in the groove.
6. **Testing:** After assembly, if possible, test the sealed system for leaks under operating conditions to confirm the integrity of the seal.

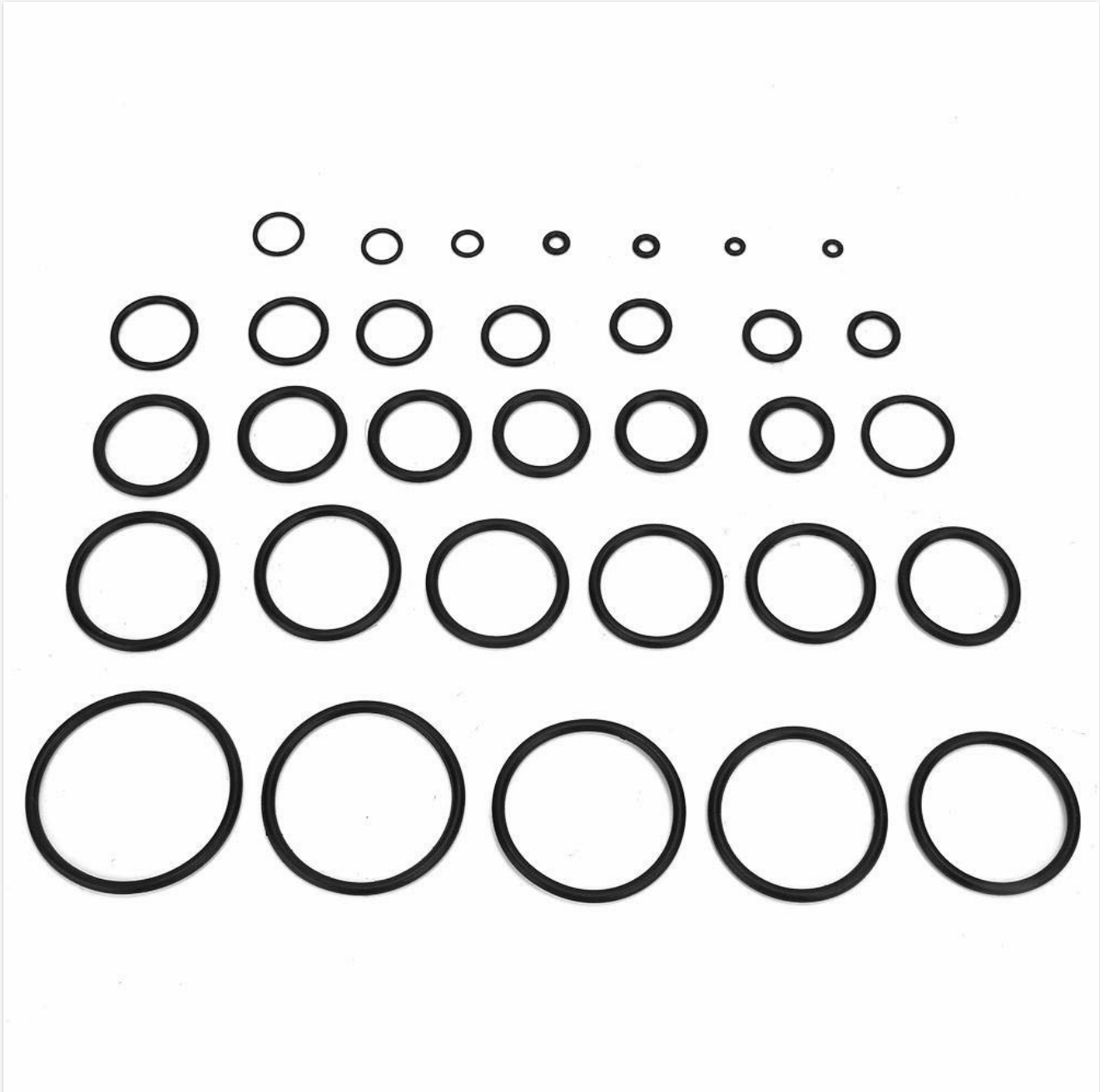


Figure 4.1: An array of O-rings of different sizes, demonstrating the variety available in the kit for diverse sealing requirements.



Good abrasion resistance, elasticity,
tensile strength and elongation

Figure 4.2: A magnified view of O-rings within their compartments, illustrating the smooth finish and consistent quality of the rubber material, which contributes to good abrasion resistance, elasticity, tensile strength, and elongation.

5. MAINTENANCE AND STORAGE

Proper maintenance and storage are crucial for extending the lifespan and maintaining the performance of your O-rings.

- **Cleanliness:** Always handle O-rings with clean hands or gloves to prevent contamination from dirt, grease, or other foreign particles that could compromise the seal.
- **Storage Environment:** Store O-rings in their original kit box in a cool, dry, and dark environment. Avoid exposure to direct sunlight, UV light, ozone, and extreme temperatures, as these can degrade the rubber material over time.
- **Chemical Exposure:** Do not expose O-rings to chemicals or solvents that are not compatible with rubber, as this can cause swelling, shrinking, or degradation.
- **Avoid Stretching:** Do not hang O-rings or store them in a way that causes them to be stretched or deformed for extended periods, as this can lead to permanent set and reduce their sealing effectiveness.

6. TROUBLESHOOTING

While O-rings are simple components, issues can arise if not properly selected or installed. Here are common problems and their potential solutions:

- **Leakage:**
 - **Incorrect Size:** The most common cause. Ensure the O-ring's inner diameter and cross-section are appropriate for the groove and application. An O-ring that is too small may be overstretched and thin out, while one that is too large may not seat properly.
 - **Damage During Installation:** Check for cuts, nicks, or abrasions on the O-ring caused by sharp edges during installation.
 - **Material Incompatibility:** The O-ring material may not be compatible with the fluid or gas being sealed, leading to swelling, shrinking, or degradation.
 - **Improper Compression:** The O-ring may be under-compressed (not enough squeeze) or over-compressed (too much squeeze, leading to permanent deformation).
- **Short Lifespan:**
 - **Environmental Factors:** Exposure to high temperatures, UV light, or ozone can accelerate degradation. Ensure proper storage and consider the operating environment.
 - **Dynamic Application Wear:** In dynamic applications (where there is movement), O-rings can wear out due to friction. Ensure proper lubrication and consider O-rings designed for dynamic use.

If you encounter persistent issues, re-evaluate the O-ring selection based on the application's specific requirements and ensure proper installation techniques are followed.

7. SPECIFICATIONS

Attribute	Detail
Product Name	O Ring Kit, 419PCS 32 Sizes Black Assortment Set
Brand	Hongzer
Material	Rubber (Seal Gasket)
Quantity	419 Pieces
Size Type	32 Assorted Sizes
Color	Black
Product Dimensions	9.84 x 6.02 x 1.65 inches
Item Weight	1.34 Pounds
UPC	738587972082
Manufacturer	Hongzer
Date First Available	December 18, 2019

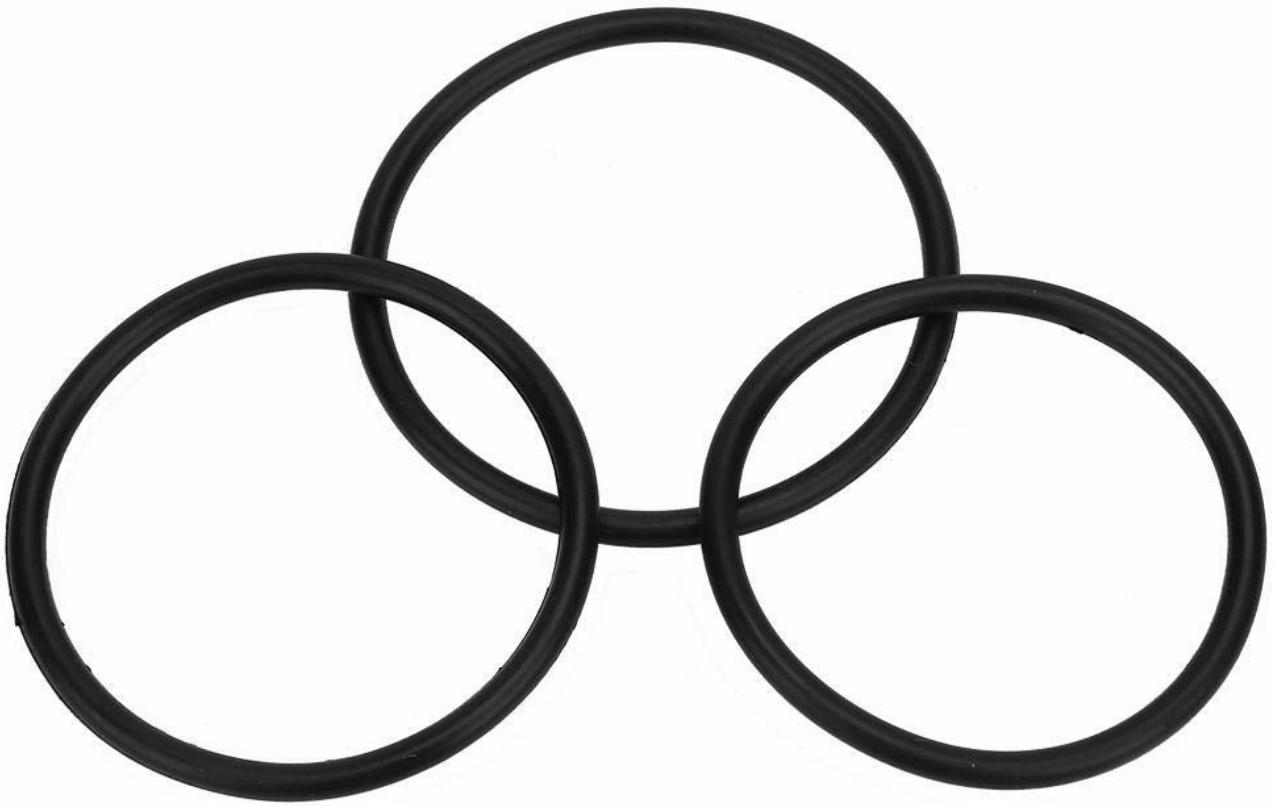


Figure 7.1: A close-up image of three O-rings, showcasing their circular form and consistent black rubber material.

8. WARRANTY AND SUPPORT

For information regarding product warranty, returns, or technical support, please contact the manufacturer, Hongzer, directly through their official channels or the retailer from whom the product was purchased. Please retain your proof of purchase for any warranty claims.