

# WEAR RING

GLASS REINFORCED NYLON WEAR RINGS



Product Performance. Affordability. Availability.



3702 Vanguard Drive | Fort Wayne, IN 46809 | USA  
260-615-3951 | [info@BlackHawkSeals.com](mailto:info@BlackHawkSeals.com)  
[BlackHawkSeals.com](http://BlackHawkSeals.com)

# GN40 – GN43

## GLASS REINFORCED NYLON WEAR RINGS

Black Hawk GN40 Wear Rings utilize a premium blend of Glass Fiber and Nylon materials that provide excellent load carrying capabilities. The manufacturing process provides a consistent and a precision thickness of +/- 0.001" along with a flat bearing surface that cannot be achieved with conventional net molded wear rings. Noise generation and stick-slip is virtually eliminated due to the lubrication boundary layer allowed to form by the machined bearing surface. No need to "sand" the Wear Rings before assembly. The optional GN43 material includes a PTFE additive to provide improved low friction functionality.

It is highly recommended that Black Hawk precision Wear Rings be incorporated into the design of high-performance hydraulic cylinders. Wear Rings maintain the concentricity of the piston and rod from component misalignment and application side loading. Without the use of Wear Ring, metal-to-metal contact of the cylinder components can cause premature component wear and the formation of internal metal contamination, often resulting in catastrophic cylinder failure.

### STANDARD MATERIALS

Material Code	Material Description	Color
GN40	40% Glass Reinforced Nylon	Dark Grey
GN43	PTFE Lubricated 40% Glass Reinforced Nylon	Light Green

### FEATURES

- High Compressive Strength
- Excellent Wear Resistance
- Excellent Fluid Resistance
- Wide Temperature Range
- Ultra-Precision Tolerance (Radial Thickness +/-0.001")
- Flat Bearing Surface - No Concave, Convex or Dog Bone Profile
- Eliminates Galling from Metal-to-Metal Surface Contact
- Low Swell - Moisture Stabilized
- Higher Temperature - Heat Stabilized
- Low Friction - PTFE Lubricated Option Available
- Low Noise Generation - No Stick-Slip
- Concentric Machined ID & OD Dimensions
- Angle Cut to Maximize Bearing Support
- Broken Corners to Eliminate Interference with the Groove Radius
- WP – Piston Series - Closed End Installation
- WR – Rod Series - Open End Installation
- Widths up to 7.500"
- Diameters up to 17.000"
- Customs are Available Upon Request (including Grooved, L-Rings & T-Rings)

