



HEXA:GRAF® 98% Expanded Graphite + Inconel + TiNOX™ Technology



X-CROSS™  
PATTERN

Expanded graphite reinforced with Inconel®, but with TiNOX™ technology for better sealing and easy removal.

**INCO:GRAF® W** is a high-performance packing with an inter-braided construction, manufactured from 98% expanded graphite yarns with an inorganic carrier reinforced with Inconel® wire and the new **TiNOX™** technology. This hybrid combination allows it to resist most chemicals within the pH range of 0-14 (except strong oxidizers).

The new **TiNOX™** technology seals the natural microporosities of the graphite, allowing for zero leakage even with penetrating gases and fluids, while the Inconel® reinforcement carrier provides superior structural stability, preventing extrusion in high-pressure applications.

The passive additive included in **TiNOX™** technology helps contain corrosion, while improved lubrication reduces friction and allows the valve actuator to respond smoothly and without skipping, also facilitating removal.

The high compressibility and flexibility of **INCO:GRAF® W** give it the ability to easily conform to irregularities in the stem and packing, maintaining its airtight seal throughout its service life without hardening or aging.

#### Benefits:

- **Superior Safety:** Good anti-extrusion resistance at high pressures and temperatures.
- **Airtight Seal:** TiNOX™ technology blocks gas and vapor leaks.
- **Equipment Protection:** Self-lubricating, it reduces stem skipping.
- **High Adaptability:** It conforms to stems with wear or slight deflections.
- **Operational Efficiency:** It does not age and significantly extends maintenance downtime.
- **Zero Corrosion:** Its passive additives prevent equipment corrosion.

**This product is designed for use on valves and other static applications; do not use it on rotating shafts.**

#### Common equipment:

- Control valves.
- Shut-off valves.

#### Common fluids:

- Saturated steam.
- Gases.
- Condensate.
- Thermal oils.
- Hydrocarbons.
- Solvents.



## TECHNICAL DATA

| Properties:              | INCO:GRAF® W                                                   | Packing   |
|--------------------------|----------------------------------------------------------------|-----------|
| Composition:             | HEXA:GRAF® 98% Expanded Graphite + Inconel + TiNOX™ Technology |           |
| Temperature, Max:        | 1,202                                                          | °F (peak) |
| Temperature, Continuous: | 842                                                            | °F        |
| Temperature, Min:        | -400                                                           | °F        |
| Max. Pressure, Valves:   | 4,351                                                          | psi       |
| Shaft Speed:             | --                                                             | fpm       |
| pH Range:                | 0-14                                                           |           |

**\*\*The maximum temperature and pressure limits should not occur simultaneously.**

## AVAILABILITY:

| Availability:        | INCO:GRAF® W                                                                                                                               | Packing   |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1/8", 5# Boxes:      | 114.59                                                                                                                                     | ft / lbs. |
| 3/16", 5# Boxes:     | 50.60                                                                                                                                      | ft / lbs. |
| 1/4", 5# Boxes:      | 28.28                                                                                                                                      | ft / lbs. |
| 5/16", 5# Boxes:     | 20.83                                                                                                                                      | ft / lbs. |
| 3/8", 5# Boxes:      | 13.54                                                                                                                                      | ft / lbs. |
| 7/16", 5# Boxes:     | 11.31                                                                                                                                      | ft / lbs. |
| 1/2", 5# Boxes:      | 9.97                                                                                                                                       | ft / lbs. |
| 9/16", 5# Boxes:     | 7.59                                                                                                                                       | ft / lbs. |
| 5/8", 11# Boxes:     | 6.25                                                                                                                                       | ft / lbs. |
| 3/4", 11# Boxes:     | 4.32                                                                                                                                       | ft / lbs. |
| 7/8", 11# Boxes:     | 3.42                                                                                                                                       | ft / lbs. |
| 1", 11# Boxes:       | 2.23                                                                                                                                       | ft / lbs. |
| Thickness Tolerance: | ±10                                                                                                                                        | %         |
| Notes:               | The packaged product may have a variation of ±10%.<br>*Other millimeter measurements and larger cross-sections are available upon request. |           |