

# Graphite Packing — Size Chart / Common Sizes / Specifications

## 1) Flexible / Expanded Graphite — braided (unreinforced)

Typical stocked sizes (metric & imperial)	Typical packaging	Typical application scenarios (by size)
<p>Round diameters: Ø 2 mm → 25 mm commonly stocked; many suppliers list 2, 3, 4, 5, 6, 8, 10, 12 mm and up; retail/industrial listings also show imperial 3/32", 1/8", 3/16", 1/4", ... up to 1 - 1/4".</p>	<p>Small spools (1 - 10 m), bulk reels (10 - 100+ m), boxed coils; cut-to-length rings on request.</p>	<p>Ø2 - 4 mm: small valves, instrumentation stems; Ø4 - 8 mm: standard centrifugal pumps, control valves; Ø8 - 16 mm: large pumps, agitators, marine glands; &gt;16 mm: heavy stuffing boxes, large industrial shafts. Flexible graphite braided is the go-to general service packing for chemical/steam up to moderate high-T when oxidation is controlled.</p>

## 2) Metal-reinforced graphite braid (SS / Inconel)

Typical stocked sizes	Packaging	Typical application scenarios
<p>Round diameters: Ø 4 - 20 mm common; square braid 4×4 → 8×8 mm common. Suppliers provide wire-reinforced up to large cross-sections.</p>	<p>Reels and pre-cut ring packs; often specified per job for high-integrity valves</p>	<p>Use for high-temperature steam valves, high-pressure gate/ball/plug valves, turbine glands, and services with cyclic loading. Inconel-filament types for high-T/halide environments; SS for general aggressive services.</p>

### 3) Graphite + fiberglass / aramid core hybrid braid

Typical sizes	Packaging	Typical application scenarios
Round and square: $\emptyset$ 4 - 12 mm; square 4×4 → 6×6 mm common.	Spools, small coils; specialty spools for maintenance teams	Where some abrasion resistance or mechanical reinforcement is needed: higher-speed pumps, vacuum service, pumps handling mild solids; applications where a fully metal reinforcement is unnecessary.

### 4) Molded graphite rings (pre-formed)

Typical OD/ID / thickness ranges	Typical packaging	Typical application scenarios
Sizes: custom to flange/shaft ID; thickness: commonly 1.5 - 6 mm for sealing rings; molded rings made to precise bore/OD and density. Vendors publish dimensional tables for common pump/valve sizes.	Boxes of rings (by size); custom order per flange/shaft spec	High-integrity pump rings, mechanical seal backup rings, defined gasket rings where uniform density and thickness are required (low-leakage service, high-precision installations).

### 5) Graphite + PTFE hybrid braids

Typical sizes	Application scenarios
$\emptyset$ 3 - 12 mm typical stock	Chemical plant valves & pumps where low friction (PTFE) + thermal dissipation (graphite) are both required — good for aggressive chemistries with shaft protection needs.

## 6) Jacketed / metal-sheathed graphite cords

Typical sizes	Application scenarios
Ø 6 - 20+ mm (jacket adds to OD)	Severe slurry / abrasive duties, mining pumps, dredge equipment and any service where braid erosion is rapid without mechanical protection. Usually made to order.