



< 500Pcs >				
M2*3 50pcs	M2*4 50pcs	M2*5 50pcs	M2*6 50pcs	M3*4 50pcs
M2.5*3 50pcs	M2.5*4 50pcs	M2.5*5 50pcs	M2.5*6 50pcs	M3*5 50pcs

Knurled Brass Insert Nut Specification

1. Product Overview

This product is Double-Knurl Mold-in Brass Insert Nut, made of brass with knurled patterns on both ends. It is pre-embedded inside plastic housings during injection molding or press-fit process to form durable internal threads for screw fastening. Widely used in consumer-electronic housings, 3D-printed parts, plastic enclosures, instruments and DIY assemblies. This is an assorted kit containing total 500 pieces.

2. Product Specifications

Item	Parameter	Remarks
Product Name	Double-Knurl Mold-in Brass Insert Nut	Knurled brass threaded insert
Material	H59 Brass	Golden finish, precision turned

Item	Parameter	Remarks
Structure	Knurled at both ends, smooth middle cylinder, through internal thread	Knurls provide anti-rotation & anti-pull-out grip with plastic
		10 sizes, 50 pcs each; total 500PCSP
Kit	M2*3 50PCSM2*4 50PCSM2*5 50PCSM2*6 50PCSM3*4	art No. definition: thread size * overall length
Contents	50PCSM2.5*3 50PCSM2.5*4 50PCSM2.5*5 50PCSM2.5*6 50PCSM3*5 50PCS	
Thread Standard	Metric coarse thread M2 / M2.5 / M3	Compliant with Metric ISO standard, match corresponding metric screws
Installation Method	1. Mold-in: Pre-place insert inside mold before plastic injection 2. Heat press-in: Heat insert and press into pre-drilled plastic hole 3. Ultrasonic press-in: Press in with ultrasonic equipment	Cold hammer-in is not recommended, may crack plastic
Tolerance	Thread tolerance 6H; dimension tolerance ± 0.15 mm	Subject to physical sample

3. Material Properties (H59 Brass)

Electrical conductivity: Good conductivity

Operating Temperature: Long-term -40 °C ~ +120 °C; short-term heat-press up to 200-230 °C

Features: Moderate hardness, excellent machinability. Knurled pattern improves holding force in plastic, anti-rotation and anti-pull-out, good corrosion resistance.

Limitation: Not suitable for heavy corrosive environment. Pre-drilled plastic hole diameter must match insert outer diameter; oversized hole will cause loose insert.

4. Installation Instructions

Mold-in Installation: Position brass insert on mold locating pin. Inject plastic material to wrap knurled sections. Insert locks firmly after cooling.

Heat Press-in (Common post-mold assembly)

Pre-drilled plastic hole diameter shall be slightly smaller than insert outer diameter.

Heat insert to 180-220 °C, apply uniform vertical pressure and press into pre-drilled hole until insert surface is flush with plastic surface.

Ultrasonic Press-in: Apply ultrasonic head onto insert. Friction heat softens plastic and insert seats into position.

Do NOT cold hammer; plastic may crack. Do not apply excessive screw torque to avoid thread stripping.

5. Application Scenarios

- Thread embedding for 3D-printed plastic parts - Consumer-product plastic enclosures - Instrument & controller housing assembly - Smart home and DIY plastic components - Internal threaded foundation for various injection-molded products

6. Notes

Assorted mixed kit: 50 pieces per size, total 500 pieces.

For post press-fit process, pre-drilled hole dimension must match insert OD. Over-size hole results in loose insert.

Heat-press temperature shall not exceed 230 °C to prevent brass oxidation and discoloration.

Metric M2/M2.5/M3 threads only, use matching metric screws.

Brass may oxidize under strong acid-alkali or heavy salt-fog environment, not recommended for such conditions.

Plain-text version (No Markdown, direct copy for document/PDF)

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