

Heat-Set Insert Specifications

Tip: Set your PDF viewer to "Actual size" before printing to maintain scale.

Metric Heat-Set Insert Specifications

Thread Size	Hole Diameter	Insert OD	Insert Length	Boss OD (Minimum)	Wall Thickness
M2	3.2mm	3.5mm	3-5mm	5.0mm	0.75mm
M2.5	3.7mm	4.0mm	3.5-6mm	5.5mm	0.75mm
M3	4.0mm	4.6mm	4-6mm	6.5mm	0.95mm
M4	5.3mm	6.0mm	5-8mm	8.5mm	1.25mm
M5	6.4mm	7.1mm	6-10mm	10.0mm	1.45mm
M6	7.6mm	8.4mm	8-12mm	11.5mm	1.55mm
M8	10.2mm	11.1mm	10-16mm	15.0mm	1.95mm

Inch Heat-Set Insert Specifications

Thread Size	Hole Diameter	Insert OD	Insert Length	Boss OD (Minimum)	Wall Thickness
#2-56	0.107"	0.125"	0.125"-0.187"	0.187"	0.031"
#4-40	0.129"	0.175"	0.187"-0.250"	0.250"	0.023"
#6-32	0.166"	0.218"	0.250"-0.312"	0.312"	0.026"
#8-32	0.196"	0.250"	0.250"-0.375"	0.375"	0.027"
#10-24	0.213"	0.281"	0.312"-0.437"	0.406"	0.034"
#10-32	0.213"	0.281"	0.312"-0.437"	0.406"	0.034"
1/4"-20	0.323"	0.375"	0.375"-0.500"	0.531"	0.026"

Installation Parameters by Plastic Type

Plastic Type	Iron Temp	Insertion Time	Cool Time	Notes
ABS	400-450°F	2-3 seconds	30 seconds	Most common 3D print material
PLA	350-400°F	2-3 seconds	30 seconds	Lower temp than ABS
PETG	425-475°F	3-4 seconds	45 seconds	Higher temp, slower cool
Nylon	450-500°F	3-4 seconds	60 seconds	Requires higher heat
Polycarbonate	475-525°F	3-4 seconds	60 seconds	High temp plastic
Acetal (Delrin)	425-475°F	2-3 seconds	45 seconds	Engineering plastic

Installation Tips

- Use temperature-controlled soldering iron or dedicated heat-set tool
- Practice on scrap parts first to dial in temperature and technique
- Hold insert perpendicular to surface for straight installation
- Apply steady, even pressure - don't rush
- If insert sinks too deep, plastic is too hot - reduce temperature
- If insert won't go in, plastic is too cold - increase temperature
- **Boss design:** Minimum wall thickness shown prevents splitting

