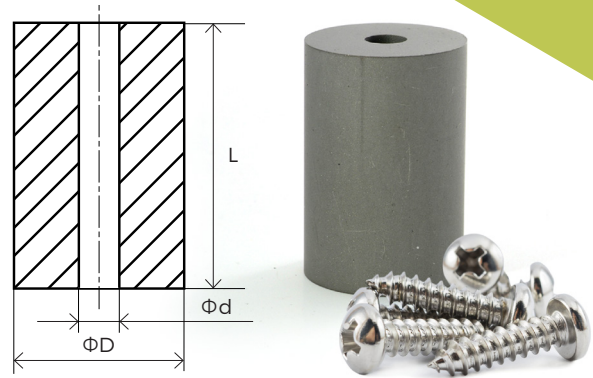


FASTENER BLANKS

Die Blanks

Hyperion Materials & Technologies manufactures long wearing, dependable cemented carbide fastener die blanks that meet industry and customer requirements. Fastener die blanks are used in the cold heading process in fastener manufacturing industries. We partner with our customers to improve performance and develop solutions for their fastener die blank applications.



TOLERANCE OUTER DIAMETER

ΦD (mm)	Length (mm)			
	10 - 20	20 - 40	40 - 60	60 - 80
10 - 20	+0.35 / +0.70	+0.40 / +0.85		
20 - 40	+0.65 / +1.10	+0.70 / +1.25	+0.75 / +1.40	+0.80 / +1.55
40 - 60	+0.95 / +1.50	+1.00 / +1.65	+1.05 / +1.80	+1.10 / +1.95
60 - 80	+1.25 / +1.90	+1.30 / +2.05	+1.35 / +2.20	+1.40 / +2.35

TOLERANCE LENGTH

ΦD (mm)	Length (mm)			
	10 - 20	20 - 40	40 - 60	60 - 80
10 - 20	+0.30 / +0.75	+0.35 / +0.90		
20 - 40	+0.35 / +0.90	+0.40 / +1.05	+0.45 / +1.20	+0.50 / +1.35
40 - 60	+0.40 / +1.05	+0.45 / +1.20	+0.50 / +1.35	+0.55 / +1.50
60 - 80	+0.45 / +1.20	+0.50 / +1.35	+0.55 / +1.50	+0.60 / +1.65

TOLERANCE INNER DIAMETER

Φd (mm)	Length (mm)			
	10 - 20	20 - 40	40 - 60	60 - 80
2 - 10	-0.25 / -0.50	-0.30 / -0.60		
10 - 20	-0.25 / -0.60	-0.30 / -0.70	-0.35 / -0.80	-0.40 / -0.90
20 - 30	-0.25 / -0.70	-0.30 / -0.80	-0.35 / -0.90	-0.40 / -1.00
30 - 40	-0.25 / -0.80	-0.30 / -0.90	-0.35 / -1.00	-0.40 / -1.10

Sizes

Outside Diameter (ΦD): 10 to 80 mm
Length (L): 10 to 80 mm
Inside Diameter (Φd): 2 to 40 mm

Tolerances

As sintered condition (see tables)

Standard Grades

Grades available for impact applications with fracture toughness K_{IC} from 10 to 25 and hardness (HV30) of 900 to 1600

Options

Semi-finished

Additional sizes, tolerances, grades, and quantities (e.g., tests) are available upon request.

