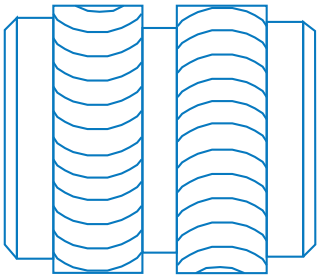
PSM International
GLOBAL FASTENING SOLUTIONS

HEAT-LOK®
INSERTS & STUDS



Designed for installation into notch sensitive amorphous thermoplastics by heat. It features rounded knurls,avoiding the stress raising sharp crests and roots which typify knurls used on most inserts.

ADVANTAGES

- LOW STRESS GENERATING CHARACTERISTICS IDEAL FOR AMORPHOUS THERMOPLASTICS
- DOUBLE ENDED- ASSISTS AUTOMATIC FEEDING
- HIGH TORQUE RESISTANCE
- SELF-ALIGNING - ASSISTS INSTALLATION

DESIGN GUIDE

HOLE PREPARATION

Molded holes are recommended wherever possible. The taper on a molded hole should be 0.5° inclusive and the hole diameter recommended should apply at the point reached by the bottom of the insert. The top of the hole should not be chamfered or counterbored and care must be taken to avoid bell mouthing. Hole diameter tolerance:-0.00 +0.10mm.

MOLDING PRACTICE

Mold design should be arranged to eliminate residual stresses in the area of the boss or hole into which the insert is to be installed.

INSTALLATION

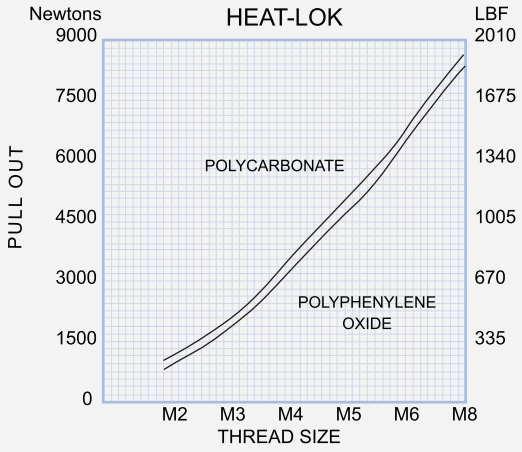
Heat-lok has been designed for installation using heat rather than ultrasonics, since direct heat best suits the plastic flow required by the insert profile.

WALL THICKNESS

A general guide to minimum wall thickness is given in the technical data table but this will vary dependant upon the nature of the plastic. Where thinner walls are required these can often be accommodated, but consultation with PSM and pre-production testing is strongly advised.

PERFORMANCE DATA

The complexity of materials and variations in service conditions make it impossible to detail fastener performance for specific applications. The chart gives a general guide and shows the relative performance of the insert in the range.



UNI-BIS Sp. z o.o.
Dystrybutor
ul. Osiedle Leśne 1a
84-300 Lębork, Polska
tel/fax: +48 59 8631417
e-mail: biuro@uni-bis.com
www.uni-bis.com

UNI-BIS industry solutions

ADVANTAGES

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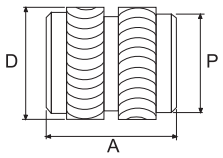
TECHNICAL DATA

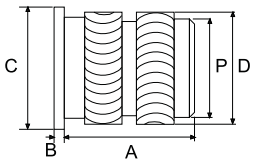
STANDARD MATERIAL: BRASS (B)
Other materials possible on quotation

INSERTS



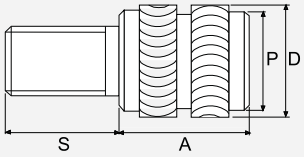
PRODUCT CODE [HL]

HEADED INSERTS



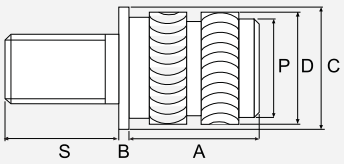
PRODUCT CODE [HLH]

STUD



PRODUCT CODE [HLTS]

HEADED STUD



PRODUCT CODE [HLHS]

DIMENSIONS

ISO METRIC

Unit: Millimetres

Thread Size	Insert Length A	Stud Lengths (For HLTS & HLHS only) S										Head Height B	Head ø C	Insert ø D	Pilot End ø P	Rec.Hole Size -0.00 +0.10	Min. Wall Thickness
M2	3.9	5	6	8	10	12	14	16	18	20	25	0.51	4.8	3.5	3.1	3.2	1.4
M2.5	5.8	5	6	8	10	12	14	16	18	20	25	0.58	5.5	4.4	3.9	4.0	1.8
M3	5.8	5	6	8	10	12	14	16	18	20	25	0.58	5.5	4.4	3.9	4.0	1.8
M3.5	7.1	5	6	8	10	12	14	16	18	20	25	0.74	6.4	5.2	4.7	4.8	2.1
M4	8.1	5	6	8	10	12	14	16	18	20	25	0.89	7.1	6.1	5.5	5.6	2.4
M5	9.5	5	6	8	10	12	14	16	18	20	25	1.07	7.9	6.9	6.3	6.4	2.8
M6	12.7	5	6	8	10	12	14	16	18	20	25	1.32	9.5	8.5	7.9	8.0	3.6
M8	12.7	5	6	8	10	12	14	16	18	20	25	1.32	11.1	10.0	9.5	9.6	5.0

Other lengths possible on quotation.

UNIFIED

Unit: Inches

Thread Size	Insert Length A	Stud Lengths (For HLTS & HLHS only) S										Head Height B	Head ø C	Insert ø D	Pilot End ø P	Rec.Hole Size -0.000 +0.004	Min. Wall Thickness
2-56	.155	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.020	.187	.137	.123	.126	.055
4-40	.228	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.023	.217	.174	.154	.157	.071
6-32	.281	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.029	.250	.206	.185	.189	.083
8-32	.320	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.035	.280	.239	.218	.220	.094
10-24	.374	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.042	.312	.270	.249	.252	.110
10-32	.374	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.042	.312	.270	.249	.252	.110
1/4-20	.500	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.052	.375	.333	.312	.315	.142
1/4-28	.500	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.052	.375	.333	.312	.315	.142
5/16-18	.500	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.052	.437	.393	.375	.378	.197
5/16-24	.500	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.052	.437	.393	.375	.378	.197

Other lengths possible on quotation.

HOW TO SPECIFY

	HL	HLH	HLTS	HLHS
PRODUCT CODE	HL-B-M3	HLH-B-M3	HLTS-B-M3-5.0	HLHS-B-M3-5.0
MATERIAL CODE	HL-B-M3	HLH-B-M3	HLTS-B-M3-5.0	HLHS-B-M3-5.0
THREAD SIZE	HL-B-M3	HLH-B-M3	HLTS-B-M3-5.0	HLHS-B-M3-5.0
STUD LENGTH			HLTS-B-M3-5.0	HLHS-B-M3-5.0

UNI-BIS Sp. z o.o.
Dystrybutor
ul. Osiedle Leśne 1a
84-300 Lębork, Polska
tel/fax: +48 59 8631417
e-mail: biuro@uni-bis.com
www.uni-bis.com

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