

FAST CENTER ROUGH BLANK SIZES

UNLESS OTHERWISE SPECIFIED ALL BLANK TOLERANCES: $+1/8"$ / $-0"$
(TOLERANCE IS CRITICAL FOR VELOCITY TESTING)



PLEASE ALLOW A MINIMUM OF $1/8"$ SAW KERF BETWEEN SAMPLES IF
SUBMITTING A LARGER SAMPLE CONTAINING MULTIPLE SPECIMENS

TENSILE (ASTM A370/E8)

Size/Sample Type	Blank Size*	Notes	FAST Drawing Number
.500" Dia. / Type 1 - Round	1" SQ x 5-1/4"	Preferred Size for Velocity Testing	IFC00001-FP1
.160" Dia. / Type 4 - Round	3/4" SQ x 2-3/4"		IFC00002-FP1
.500" Dia. / Type 1 - Threaded**	1" SQ x 5-1/4"		IFC00006-FP1
.350" Dia. / Type 2 - Threaded**	7/8" SQ x 4-1/2"		IFC00005-FP1
.250" Dia. / Type 3 - Threaded**	3/4" SQ x 3-5/8"		IFC00004-FP1
.160" Dia. / Type 4 - Threaded**	5/8" SQ x 2-3/4"		IFC00003-FP1
.113" Dia. / Type 5 - Threaded**	1/2" SQ x 2-1/2"		IFC00059-FP1
.500" Width / Sheet-Type Flat	Thickness x 3/4" x 8"		IFC00068-FP1
.250" Width / Subsize Flat	Thickness x 3/8" x 4"		IFC00024-FP1

*EQUIVALENT ROUND BLANK SIZES ARE ALSO ACCEPTABLE INSTEAD OF SQUARE SIZES

**ELEVATED TEMPERATURE TENSILES AND CREEP/STRESS RUPTURE/STRESS RELAXATION SAMPLES USE THREADED ENDS

CHARPY IMPACT (ASTM A370/E23)

Size/Sample Type	Blank Size	Notes	FAST Drawing Number
10mm / Full Size	1/2" SQ x 3-1/8"	Preferred Size for Velocity Testing	IFC00017-FP1
7.5mm / 3/4 Thickness	7/16" x 1/2" x 3-1/8"		IFC00018-FP1
5mm / 1/2 Thickness	5/16" x 1/2" x 3-1/8"		IFC00019-FP1
2.5mm / 1/4 Thickness	1/4" x 1/2" x 3-1/8"		IFC00020-FP1

COMPRESSION (ASTM E9)

Size/Sample Type	Blank Size*	Notes	FAST Drawing Number
.500" Dia. x 2.000" OAL	3/4" SQ x 2-3/4"	Preferred Size for Velocity Testing	IFC00065-FP1
.500" Dia. x 1.500" OAL	3/4" SQ x 2-1/4"		IFC00021-FP1

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**DYNAMIC TEAR (ASTM E604)**

Size/Sample Type	Blank Size	Notes	FAST Drawing Number
Standard (Full Size) E604	7/8" x 1-3/4" x 7-3/16"	Preferred Size for Velocity Testing	IFC00023-FP2

FRACTURE TOUGHNESS (ASTM E399/E1820)

Size/Sample Type*	Blank Size	Notes	FAST Drawing Number
B .500 / C(T)	3/4" x 1-1/2" x 1-1/2"		IFC00092-FP1 / IFC00045-FP1
B .600 / C(T)	7/8" x 1-3/4" x 1-3/4"		IFC00046-FP1
B .700" / C(T)	1" x 2" x 2"		IFC00007-FP1 / IFC00012-FP1
B .750" / C(T)	1" x 2-1/8" x 2-1/8"		IFC00008-FP1 / IFC00013-FP1
B 1.00" / C(T)	1-1/4" x 2-3/4" x 2-3/4"		IFC00009-FP1 / IFC00014-FP1
B 1.50" / C(T)	1-3/4" x 4" x 4"		IFC00091-FP1
B 2.00" / C(T)	2-1/4" x 5-1/4" x 5-1/4"		IFC00010-FP1 / IFC00015-FP1
B 2.25" / C(T)	2-1/2" x 5-7/8" x 5-7/8"		IFC00011-FP1 / IFC00016-FP1
B .500 / SE(B)	3/4" x 1-1/4" x 4-3/4"		IFC00033-FP1

*ADDITIONAL SIZES ARE AVAILABLE WITH THE PURCHASE OF ADDITIONAL TOOLING

FATIGUE CRACK GROWTH (ASTM E647)

Size/Sample Type*	Blank Size	Notes	FAST Drawing Number
B .250"	1/2" x 2" x 2"		IFC00048-FP1
B .500"	3/4" x 2-3/4" x 2-3/4"		IFC00080-FP1

*ADDITIONAL SIZES ARE AVAILABLE WITH THE PURCHASE OF ADDITIONAL TOOLING

SHEAR (ASTM B769)

Size/Sample Type	Blank Size*	Notes	FAST Drawing Number
.375" Dia. x 3.000" OAL	5/8" SQ x 3-3/4"		IFC00078-FP1
.375" Dia. x 1.500" OAL	5/8" SQ x 2-1/4"		IFC00085-FP1

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BEND (ASTM E190/E290 & AWS B4.0)

Size/Sample Type	Blank Size	Notes	FAST Drawing Number
.250" Thickness / E190	1/2" x 1-1/2" MAX x 6" MIN		IFC00055-FP1
.375" Thickness / E190	5/8" x 1-1/2" MAX x 6" MIN		IFC00034-FP1
.500" Thickness / E190	3/4" x 1-1/2" MAX x 6" MIN		IFC00056-FP1
.250" Thickness / E290	1/2" x 3/4" MAX x 6" MIN		IFC00057-FP1
.375" Thickness / E290	5/8" x 3/4" MAX x 6" MIN		IFC00058-FP1
.500" Thickness / E290	3/4" x 1" MAX x 6" MIN		IFC00037-FP1

ROTATING BEAM FATIGUE (HIGH CYCLE FATIGUE: ISO1143)

Size/Sample Type	Blank Size*	Notes	FAST Drawing Number
.200" Dia. / Round	5/8" SQ x 4-3/4"		IFC00030-PL1

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AXIAL FATIGUE (ASTM E466/E606)

Size/Sample Type	Blank Size*	Notes	FAST Drawing Number
.250" Dia. (4.000" OAL) / Round	3/4" SQ x 5"		IFC00088-PL1
.250" Dia. (6.625" OAL) / Round	3/4" SQ x 7-5/8"		IFC00061-PL1
.500" Dia. (7.625" OAL) / Round	1" SQ x 8-5/8"		IFC00062-PL1

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MICROSTRUCTURE

Size/Sample Type*	Blank Size	Notes	FAST Drawing Number
1.250" Dia. Mounts**	3/4" SQ x 1/2"		N/A

*CUSTOM SIZES CAN BE USED UPON REQUEST

**COLD MOUNTING AND HOT (COMPRESSION) MOUNTING AVAILABLE; CONDUCTIVE MOUNT ALSO AVAILABLE

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DENSITY ANALYSIS (ASTM B311/E1245)

Size/Sample Type*	Blank Size	Notes	FAST Drawing Number
1.000" Cube	1" SQ x 1"		N/A

THERMAL PROPERTIES (SEE BELOW)

Size/Sample Type	Blank Size*	Notes	FAST Drawing Number
Coeff. of Thermal Expansion (ASTM E831/E228)	3/8" SQ x 1-1/2"	Thermomechanical Analysis (TMA)	IFC00081-FP1
Specific Heat (ASTM E1269)	1/4" SQ x 1"	Differential Scanning Calorimeter (DSC)	IFC00082-FP1
Thermal Diffusivity (ASTM E1461)	5/8" SQ x 1"	Laser Flash Analysis (LFA)	IFC00083-FP1
Cumulative Thermal Property Sample**	5/8" SQ x 1-1/2"	Cumulative TMA, DSC & LFA	N/A

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**CUMULATIVE SAMPLE IS PREFERRED WHEN COMPREHENSIVE RESULTS OF ALL THERMAL PROPERTIES IS REQUIRED