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		Revision U	
Description: Intercept® IG Spacer Frame Raw Material Specifications			
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Revision History:		Changed By:	Date:
K) Tin Plate Spec – added reflowed coating option, and alternative coating 0.10# matte or reflowed.		TES	07/05/07
L) Replaced “Vilda V92” with “Intercept ULTRA”. Added Blackline Specs. Rmvd 430 & 201 SS. ER04152		BB	02/04/08
M) Revised ULTRA Blackline specs for product name and code. Updated contact info for Colonial Metals per PAIR 3030.		TES	7/28/08
N) Revised ULTRA mill thickness spec. ER04359		BB	10/26/10
O) Added ThinPlate raw material spec. ER04408		BB	04/04/11
Q) Updated metric strip width table ER04345		BB	01/04/13
R) Added Suppliers to ULTRA and Blackline ER04552 Added ThinPlate Blackline material spec.		TBM	06/10/13
S) Added Suppliers to Sealant ER04648		JCL	07/24/14
T) Added Opti-Close fastener info and contact info ER 03964		BB	11/04/15
U) Added Supplier to ULTRA material ER 04839		BB	01/10/17



CONTENTS

- Overview..... 3**
- Purchasing Material..... 3**
- Storing Material..... 3**
- For Further Assistance..... 3**
- Intercept ULTRA Stainless Steel Specifications..... 4**
 - Material Description 4*
 - *Intercept Ultra Blackline (Optional Surface Coating)..... 4*
- Intercept ThinPlate Steel Specifications 5**
 - *Material Description..... 5*
- Intercept ThinPlate Blackline Steel Specifications..... 6**
 - *Material Description..... 6*
 - *Intercept ThinPlate Blackline Steel (Surface Coating) 6*
- Strip Width Specifications, Intercept ULTRA & Intercept ThinPlate..... 7*
- Strip Width Specifications (Metric), Intercept ULTRA & Intercept ThinPlate..... 8*
- Intercept Steel Specifications 9**
 - Intercept Tin Plate Steel Specifications 9*
 - *Material Description..... 9*
 - Intercept Blackline Steel Specifications 10*
 - *Material Description..... 10*
 - *Intercept Blackline Steel (Surface Coating) 10*
 - Strip Width Specifications: Tin Plate & Blackline Steel 11*
 - Strip Width Specifications (Metric): Tin Plate & Blackline Steel 12*
 - Suppliers, Steel – ThinPlate and Tin-Plate 13*
 - Supplier, Steel – Blackline Tin Plate and Stainless Steel ULTRA 13*
 - Supplier, Stainless Steel ULTRA 13*
- Screws..... 14**
 - Suppliers..... 14*
- Rivets..... 15**
 - Suppliers..... 15*
- Opti-Close 15**
 - Suppliers..... 15*
- Muntin End Clips 16**
 - Material Description 16*
 - Suppliers..... 16*
- Ink Jet Printers..... 16**
 - For ink refills, tool kits, sales and service:..... 16*
- For More Information..... 17**
 - PPG 17*
 - GED..... 17*



OVERVIEW

This document contains the raw material specifications for Intercept® IG Spacer Frames. This edition supersedes any previously published specifications, and is intended to clarify the specifications, rather than change the material requirements.

PURCHASING MATERIAL

When purchasing steel, *make sure all the specifications are met exactly*. Check the size, packaging, and coating. Make sure the edges of the material are not damaged. Material that does not meet these specifications will cause machine malfunction and/or damage. *Use of material that fails to meet these specifications will void the machine warranty.*

This document lists several companies that supply raw materials. They may or may not be exclusive suppliers. All companies listed here have demonstrated the ability to deliver quality materials that meet these specifications. NOTE: Ashland Products is the exclusive producer of muntin end clips under license.

STORING MATERIAL

Make sure the material is stored properly. Improper storage will damage the material, making it unusable.

- Use smooth, dry chipboard between the coils.
- Keep the coils wrapped in a rust-resistive plastic bag (Cortec or equivalent) to protect the material from moisture and prevent rust during shipment and storage.
- Do not use shrink wrap.
- Keep the material in a clean, dry room under a constant temperature.
- Keep the material away from moisture.
- Rewrap any unused material.

FOR FURTHER ASSISTANCE

If you have any questions, contact the GED Integrated Solutions Customer Service Department at (330) 963-5401.

Intercept ULTRA Stainless Steel Specifications

- **Material Description**

(The metal must be clean and dry. Make sure the edges are not damaged.) Berlin Metals Stainless Steel type Intercept ULTRA.

Material Thickness	0.0076" +0.0008"/-0.0000"
Cut Slit Width Tolerance	+0.000" / -0.005", Burr allowance 10% of M.T.
Coil Core Size (I.D)	16"
Coil O.D.	36" maximum
Coil Weight of 1 inch wide material	232# (approximately)
Linear feet/coil	8500 ft (approximately)

- **Intercept Ultra Blackline (Optional Surface Coating)**

Paint Manufacturer	Specialty Coatings Company (Becker Industrial Coatings)
Product	Specialty Super Series 3000 Polyester
Product Code	408-1-K1030
Color & Finish	Gloss Black
Coating Thickness per Side (Ref.)	0.0006" to 0.0007"
Hardness (Ref.)	F Eagle Turquoise
Solvent Resistance (Ref.)	50+ Double Rubs, MEK
Flexibility (Ref.)	0T Bend

Both sides of the material are coated using identical material. The requirements for substrate pre-treatment, coating thickness, flexibility, hardness, adhesion and chemical resistance are specified and controlled by Specialty Coatings Technical Data Sheets. Values contained on this table are for reference purposes only.



Intercept ThinPlate Steel Specifications

- **Material Description**
(The metal must be clean and dry. Make sure the edges are not damaged.)

Material Thickness	Nominal 0.0077", Range 0.0069"- 0.0085"
Weight	70# per base box (0.0077") thickness
Finish	Matte or bright
Coating	0.25# matte or reflowed electrolytic tin plate
Alternative Coating	0.10# matte or reflowed electrolytic tin plate
Oil Level	ATBC (Acetyl tributyl citrate) oil level 1 or minimum
Chemtreat	CDC-5 450 +/- 100 Micrograms/sq ft.
Coil Core Size (I.D.)	16"
Coil O.D.	36" maximum
Coil Weight	230# (approximate)
Linear feet/coil	8500' (approximate)
Cut Slit Width Tolerance	+ .000", - .005" Burr free edge
Coils Skidded	2500# maximum

Intercept ThinPlate Blackline Steel Specifications

- Material Description**

(The metal must be clean and dry. Make sure the edges are not damaged.)

Material	Black plate steel
Material Thickness (Uncoated)	Nominal 0.0077", Range 0.0069" - 0.0085"
Weight	70# per base box (0.0077") thickness
Finish	#5C finish (AIM 40 to 60 microinches)
Oil Level	ATBC (Acetal tributyl citrate) oil level 1 or minimum
Coil Core Size (I.D.)	16"
Coil O.D.	36" maximum
Coil Weight	230# (approximate)
Linear feet/coil	8500' (approximate)
Cut Slit Width Tolerance	+.000", -.005" Burr free edge
Coils Skidded	2500# maximum

- Intercept ThinPlate Blackline Steel (Surface Coating)**

Paint Manufacturer	Specialty Coatings Company (Becker Industrial Coatings)
Product	Specialty Super Series 3000 Polyester
Product Code	408-1-K1030
Color & Finish	Gloss Black
Coating Thickness per Side (Ref.)	0.0006" to 0.0007"
Hardness (Ref.)	F Eagle Turquoise
Solvent Resistance (Ref.)	50+ Double Rubs, MEK
Flexibility (Ref.)	0T Bend

Both sides of the material are coated using identical material. The requirements for substrate pre-treatment, coating thickness, flexibility, hardness, adhesion and chemical resistance are specified and controlled by Specialty Coatings Technical Data Sheets. Values contained on this table are for reference purposes only.



Strip Width Specifications, Intercept ULTRA & Intercept ThinPlate

NOTE: Refer to drawing 3-11970.

Strip Width Specifications – English Measurements	
Standard Profile (.300" side wall height)	
Spacer Width (+/- .005")	Strip Width (+.000/ - .005")
7/32"	0.882"
1/4"	0.913"
9/32"	0.944"
5/16"	0.976"
11/32"	1.006"
3/8"	1.038"
13/32"	1.069"
7/16"	1.101"
15/32"	1.131"
1/2"	1.163"
17/32"	1.193"
9/16"	1.225"
19/32"	1.257"
5/8"	1.288"
21/32"	1.319"
11/16"	1.351"
23/32"	1.383"
3/4"	1.413"
25/32"	1.445"
13/16"	1.476"
27/32"	1.507"
7/8"	1.538"



Strip Width Specifications (Metric), Intercept ULTRA & Intercept ThinPlate

NOTE: Refer to drawing #3-11974.

Strip Width Specifications – Metric Measurements	
Standard Profile (7.62 mm side wall height)	
Spacer Width (+/- .13 mm)	Strip Width (+.00/ .13 mm)
6.0 mm	22.87 mm
6.5 mm	23.37 mm
7.0 mm	23.87 mm
7.5 mm	24.37 mm
8.0 mm	24.87 mm
8.5 mm	25.37 mm
9.0 mm	25.87 mm
9.5 mm	26.37 mm
10.0 mm	26.87 mm
10.5 mm	27.37 mm
11.0 mm	27.87 mm
11.5 mm	28.37 mm
12.0 mm	28.87 mm
12.5 mm	29.37 mm
13.0 mm	29.87 mm
13.5 mm	30.37 mm
14.0 mm	30.87 mm
14.5 mm	31.37 mm
15.0 mm	31.87 mm
15.5 mm	32.37 mm
16.0 mm	32.87 mm
16.5 mm	33.37 mm
17.0 mm	33.87 mm
17.5 mm	34.37 mm
18.0 mm	34.87 mm
18.5 mm	35.37 mm
19.0 mm	35.87 mm
19.5 mm	36.37 mm
20.0 mm	36.87 mm
20.5 mm	37.37 mm
21.0 mm	37.87 mm
21.5 mm	38.37 mm
22.0 mm	38.87 mm
22.5 mm	39.37 mm



Intercept Steel Specifications

Intercept Tin Plate Steel Specifications

- Material Description**

(The metal must be clean and dry. Make sure the edges are not damaged.)

Material Thickness	Nominal 0.0105", Range 0.0097"- 0.0110"
Weight	95# per base box (0.0105") thickness
Temper	T - 4 (AIM 58 - 64) RW 30-T Continuous Annealing Process
Finish	#5 finish (AIM 45 +/- 15 (microinches))
Coating	0.25# matte or reflowed electrolytic tin plate
Alternative Coating	0.10# matte or reflowed electrolytic tin plate
Oil Level	ATBC (Acetal tributyl citrate) oil level 1 or minimum
Chemtreat	CDC-5 450 +/- 100 Micrograms/sq ft.
Coil Core Size (I.D.)	16"
Coil O.D.	36" maximum
Coil Weight	230# (approximate)
Linear feet/coil	6900' (approximate)
Cut Slit Width Tolerance	+ .000", - .005" Burr free edge
Coils Skidded	2500# maximum

Intercept Blackline Steel Specifications

- Material Description**

(The metal must be clean and dry. Make sure the edges are not damaged.)

Material	Black plate steel
Material Thickness (Uncoated)	Nominal 0.0097", Range 0.0087" to 0.0107"
Weight	88# per base box (0.0097") thickness
Temper	T - 4 (AIM 58 to 64) RW 30-T Continuous Annealing Process
Finish	#5C finish (AIM 40 to 60 microinches)
Oil Level	ATBC (Acetal tributyl citrate) oil level 1 or minimum
Coil Core Size (I.D.)	16"
Coil O.D.	36" maximum
Coil Weight	230# (approximate)
Linear feet/coil	6900' (approximate)
Cut Slit Width Tolerance	+.000", -.005" Burr free edge
Coils Skidded	2500# maximum

- Intercept Blackline Steel (Surface Coating)**

Paint Manufacturer	Specialty Coatings Company (Becker Industrial Coatings)
Product	Specialty Super Series 3000 Polyester
Product Code	408-1-K1030
Color & Finish	Gloss Black
Coating Thickness per Side (Ref.)	0.0006" to 0.0007"
Hardness (Ref.)	F Eagle Turquoise
Solvent Resistance (Ref.)	50+ Double Rubs, MEK
Flexibility (Ref.)	0T Bend

Both sides of the material are coated using identical material. The requirements for substrate pre-treatment, coating thickness, flexibility, hardness, adhesion and chemical resistance are specified and controlled by Specialty Coatings Technical Data Sheets. Values contained on this table are for reference purposes only.



Strip Width Specifications: Tin Plate & Blackline Steel

NOTE: Refer to drawings # 3-11968 and 3-11969.

Strip Width Specifications – English Measurements			
Standard Profile Spacers (.300" side wall height)		Low Profile Spacers (.250" side wall height)	
Spacer Width (+/- .005")	Strip Width (+.000/- .005")	Spacer Width (+/- .005")	Strip Width (+.000/- .005")
7/32"	0.862"	7/32"	.762"
1/4"	0.893"	1/4"	.793"
9/32"	0.924"	9/32"	.824"
5/16"	0.956"	5/16"	.856"
11/32"	0.986"	11/32"	.886"
3/8"	1.018"	3/8"	.918"
13/32"	1.049"	13/32"	.949"
7/16"	1.081"	7/16"	.981"
15/32"	1.111"	15/32"	1.011"
1/2"	1.143"	1/2"	1.043"
17/32"	1.173"	17/32"	1.073"
9/16"	1.205"	9/16"	1.105"
19/32"	1.237"	19/32"	1.137"
5/8"	1.268"	5/8"	1.168"
21/32"	1.300"	21/32"	1.200"
11/16"	1.331"	11/16"	1.231"
23/32"	1.363"	23/32"	1.263"
3/4"	1.393"	3/4"	1.293"
25/32"	1.425"	25/32"	1.325"
13/16"	1.455"	13/16"	1.356"
27/32"	1.487"	27/32"	1.387"
7/8"	1.518"	7/8"	1.418"



Strip Width Specifications (Metric): TinPlate & Blackline Steel

NOTE: Refer to drawings # 3-11972 and 3-11973.

Strip Width Specifications - Metric Measurements			
Standard Profile Spacers		Low Profile Spacers	
Spacer Width (+/- .13 mm)	Strip Width (+.00/ .13 mm)	Spacer Width (+/- .13 mm)	Strip Width (+.00/ -.13 mm)
6.0 mm	22.35 mm	6.0 mm	19.85 mm
6.5 mm	22.85 mm	6.5 mm	20.35 mm
7.0 mm	23.35 mm	7.0 mm	20.85 mm
7.5 mm	23.85 mm	7.5 mm	21.35 mm
8.0 mm	24.35 mm	8.0 mm	21.85 mm
8.5 mm	24.85 mm	8.5 mm	22.35 mm
9.0 mm	25.35 mm	9.0 mm	22.85 mm
9.5 mm	25.85 mm	9.5 mm	23.35 mm
10.0 mm	26.35 mm	10.0 mm	23.85 mm
10.5 mm	26.85 mm	10.5 mm	24.35 mm
11.0 mm	27.35 mm	11.0 mm	24.85 mm
11.5 mm	27.85 mm	11.5 mm	25.35 mm
12.0 mm	28.35 mm	12.0 mm	25.85 mm
12.5 mm	28.85 mm	12.5 mm	26.35 mm
13.0 mm	29.35 mm	13.0 mm	26.85 mm
13.5 mm	29.85 mm	13.5 mm	27.35 mm
14.0 mm	30.35 mm	14.0 mm	27.85 mm
14.5 mm	30.85 mm	14.5 mm	28.35 mm
15.0 mm	31.35 mm	15.0 mm	28.85 mm
15.5 mm	31.85 mm	15.5 mm	29.35 mm
16.0 mm	32.35 mm	16.0 mm	29.85 mm
16.5 mm	32.85 mm	16.5 mm	30.35 mm
17.0 mm	33.35 mm	17.0 mm	30.85 mm
17.5 mm	33.85 mm	17.5 mm	31.35 mm
18.0 mm	34.35 mm	18.0 mm	31.85 mm
18.5 mm	34.85 mm	18.5 mm	32.35 mm
19.0 mm	35.35 mm	19.0 mm	32.85 mm
19.5 mm	35.85 mm	19.5 mm	33.35 mm
20.0 mm	36.35 mm	20.0 mm	33.85 mm
20.5 mm	36.85 mm	20.5 mm	34.35 mm
21.0 mm	37.35 mm	21.0 mm	34.85 mm
21.5 mm	37.85 mm	21.5 mm	35.35 mm
22.0 mm	38.35 mm	22.0 mm	35.85 mm
22.5 mm	38.85 mm	22.5 mm	36.35 mm



Suppliers, Steel – ThinPlate and TinPlate

Berlin Metals, Inc.

3200 Sheffield Ave.
Hammond, IN 46327-1002
Tel: (800) 754-8867
Steve Berlinski

Colonial Metals

2350 Quality Lane
Hermitage PA 16148
Tel: (724) 346-5550
Will Thomas

Leading Edge Distribution

7850 Northfield
Road Walton Hills,
OH 44146 Tel: (440)
786-2444
Dave Thoman

Supplier, Steel – Blackline TinPlate and Stainless Steel ULTRA

Leading Edge Distribution

7850 Northfield
Road Walton Hills,
OH 44146 Tel: (440)
786-2444
Dave Thoman

Supplier, Stainless Steel ULTRA

Berlin Metals, Inc.

3200 Sheffield Ave.
Hammond, IN 46327-1002
Tel: (800) 754-8867
Steve Berlinski

Leading Edge Distribution

7850 Northfield
Road Walton Hills,
OH 44146 Tel: (440)
786-2444
Dave Thoman

Colonial Metals

2350 Quality Lane
Hermitage PA 16148
Tel: (724) 346-5550
Will Thomas



Suppliers, Sealant and Desiccant Matrix

HB Fuller Co.

5220 Main Street
Northeast
Minneapolis, MN
55421
Tel: (800)-328-7307
Mark Hackbarth

Fenzi North America

11 Dansk Ct.
Toronto, Ontario M9W
5N6 Canada
Tel: (416) 674-3831

Kommerling (Ramapo)

4760 Goer Dr., Unit F
North Charleston, SC
29406 Tel: (843) 747-
2577
Jason Douglas

Screws

Material Description

Screw sizes:

- #8-32 (0.125")
- #10-32 (0.157")
- ¼-28 (0.205")

Suppliers

Leading Edge Distribution

7850 Northfield
Road Walton Hills,
OH 44146 Tel: (440)
786-2444
Dave Thoman



Rivets

Material Description

Closed-end Sealing Rivets without gaskets 3 mm and 4 mm

Suppliers

Leading Edge Distribution

7850 Northfield
Road Walton Hills,
OH 44146 Phone
(440) 786-2444
Dave Thoman

McKeegan Sales

811 Ronda Dr
Canton, MI 48187
Phone (734) 459-5870

3 mm rivet - Part # 4253 4
mm rivet - Part # 4255

S. W. Anderson Company

Downers Grove, IL
Phone: (630) 964-
2600

3 mm rivet - Part # R-4242 4
mm rivet - Part # R-4243

Opti-Close

Material Description

4mm X 12mm slotted-hole closure

Suppliers

Leading Edge Distribution

7850 Northfield
Road Walton Hills,
OH 44146 Phone
(440) 786-2444



Dave Thoman



Muntin End Clips

Material Description

Clip sizes from 7/32" - 23/32", in 1/16" increments
Clip sizes from 6mm to 22.5mm, in 0.5mm increments

Suppliers

Ashland Products

790 W Commercial
Ave Lowell, IN
46356
Phone (219) 696-5950

Ink-Jet & Laser Spacer Marking Systems

Ink-Jet Printers

For maintenance, ink refills and service:

VideoJet Systems

1500 Mittel Blvd
Wood Dale, IL
60191
(630) 860-7300 Sales/Corporate Office
(800)843-3610 Service

Domino

1290 Lakeside Drive
Gurnee, IL 60031
Phone (513) 574-0883
Phone (800) 444-4512

Laser Marking Systems

For maintenance and service:

VideoJet Systems

1500 Mittel Blvd
Wood Dale, IL
60191
(630) 860-7300 Sales/Corporate Office
(800)843-3610 Service



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