




GED Integrated Solutions, Inc 31100 Diamond Pkwy Glenwillow, OH 44139		Document No.: ED-0019	Date: 06/03/2019
		Revision Y	
Description: <b>Intercept® IG Spacer Frame Raw Material Specifications</b>			
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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 Added ThinPlate Blackline material spec.	ER04552	TBM	06/10/13
S) Added Suppliers to Sealant	ER04648	JCL	07/24/14
T) Added Opti-Close fastener info	ER 03964	BB	11/04/15
U) Added Supplier to ULTRA material	ER 04839	BB	01/10/17
V) Updated Company Address and Supplier Contacts	ER 04965	TBM	06/29/18
W) Updated Supplier Listings, Add Scrivet	ER05146	BB	03/18/19
X) Updated Blackline Supplier Listing	ER05193	BB	05/06/19
Y) Updated Supplier Listings	ER05201	BB	06/03/19



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## 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 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 approved 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 and Contour Grid Joiners 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 & Blackline 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 lb. (approximate)
Linear feet/coil	8500 ft. (approximate)

- 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 lb. (approximate)
Linear feet/coil	8500 ft. (approximate)
Cut Slit Width Tolerance	+ 0.000" / - 0.005" Burr free edge
Coils Skidded	2500 lb. 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 lb. (approximate)
Linear feet/coil	8500 ft. (approximate)
Cut Slit Width Tolerance	+ 0.000" / - 0.005" Burr free edge
Coils Skidded	2500 lb. 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

<b>Strip Width Specifications – English Measurements</b>	
Standard Profile (.300" side wall height)	
Spacer Width (+/- 0.005")	Strip Width (+ 0.000/ - 0.005")
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

<b>Strip Width Specifications – Metric Measurements</b>	
Standard Profile (7.62mm side wall height)	
Spacer Width (+/- 0.13mm)	Strip Width (+ 0.00/ 0.13mm)
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 Tin Plate 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 lb. (approximate)
Linear feet/coil	6900 ft. (approximate)
Cut Slit Width Tolerance	+ 0.000" / - 0.005" Burr free edge
Coils Skidded	2500 lb. 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 lb. (approximate)
Linear feet/coil	6900 ft. (approximate)
Cut Slit Width Tolerance	+ 0.000" / - 0.005" Burr free edge
Coils Skidded	2500 lb. 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

Strip Width Specifications – English Measurements			
Standard Profile Spacers (.300" side wall height)		Low Profile Spacers (.250" side wall height)	
Spacer Width (+/- 0.005")	Strip Width (+ 0.000/- 0.005")	Spacer Width (+/- 0.005")	Strip Width (+ 0.000/- 0.005")
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**

<b>Strip Width Specifications - Metric Measurements</b>			
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



## Approved Suppliers for Intercept Spacer Material

### Approved Suppliers, Steel – ThinPlate and TinPlate

#### **Leading Edge Distribution**

1333 E Highland Rd. Ste C  
Macedonia, OH 44056  
Tel: (440) 786-2444  
Dave Thoman

#### **Colonial Metals**

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

#### **Berlin Metals**

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

### Approved Suppliers, Blackline ThinPlate, TinPlate and Stainless Steel ULTRA

#### **Leading Edge Distribution**

1333 E Highland Rd. Ste C  
Macedonia, OH 44056  
Tel: (440) 786-2444  
Dave Thoman

#### **Colonial Metals**

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



**Approved Suppliers, Stainless Steel ULTRA**

**Leading Edge Distribution**

1333 E Highland Rd. Ste C  
Macedonia, OH 44056  
Tel: (440) 786-2444  
Dave Thoman

**Colonial Metals**

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

**Berlin Metals**

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

**Sealant and Desiccant Matrix**

**Suppliers**

**HB Fuller Co. and Kömmerling**

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

## GED Scrivets

### Material Description

Zinc plated steel screw

	<u>Standard Scrivet Part #</u>		<u>Cap. Tube Scrivet Part #</u>	
Color \ Size	<u>Silver/Gray</u>	<u>Blackline</u>	<u>Silver/Gray</u>	<u>Blackline</u>
#8-32	3-34679-1	3-34679-2	3-36244-1	3-36244-2
#10-32	3-32979-1	3-32979-2	3-33150-1	3-33150-2

### Supplier

#### GED Integrated Solutions, Inc.

31100 Diamond Pkwy.  
 Glenwillow, OH 44139  
 Tel: (330) 963-5401  
 Fax: (216) 539-0677  
<https://store.gedusa.com>

## Screws

### Material Description

Screw sizes:

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

### Suppliers

#### Leading Edge Distribution

1333 E Highland Rd. Ste C  
 Macedonia, OH 44056  
 Tel: (440) 786-2444  
 Dave Thoman



## Rivets

### Material Description

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

### Suppliers

#### Leading Edge Distribution

1333 E Highland Rd. Ste C  
Macedonia, OH 33056  
Tel: (440) 786-2444  
Dave Thoman

#### McKeegan Sales

811 Ronda Dr.  
Canton, MI 48187  
Tel: (734) 459-5870  
3 mm rivet - Part # 4253  
4 mm rivet - Part # 4255

#### S. W. Anderson Company

Downers Grove, IL  
Tel: (630) 964-2600  
3 mm rivet - Part # R-4242  
4 mm rivet - Part # R-4243

## Opti-Close

(\*See Note\*)

### Material Description

4mm X 12mm slotted-hole closure  
\*Note: Contact supplier for compatibility

### Suppliers

#### Leading Edge Distribution

1333 E Highland Rd. Ste C  
Macedonia, OH 44056  
Tel: (440) 786-2444  
Dave Thoman





## Muntin End Clips

### Material Description

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

### Approved Supplier

#### Ashland Products

545 E John Carpenter Freeway, Suite 610  
Irving, TX 75062  
Tel: (469) 621-9830

## Laser & Ink-Jet Spacer Marking Systems

### Laser Marking Systems

#### For maintenance and service:

#### VideoJet Systems

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

### Ink-Jet Printers

#### For maintenance, ink refills and service:

#### VideoJet Systems

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

#### Domino

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



## For More Information

### **Vitro**

[www.vitro.com](http://www.vitro.com)

Tel: (412) 820-8507

Fax: (412) 820-4904

Brad Boone

[bboone@vitro.com](mailto:bboone@vitro.com)

### **GED Integrated Solutions, Inc.**

[www.gedusa.com](http://www.gedusa.com)

31100 Diamond Pkwy.

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