

# WHY IS DENSITY SO IMPORTANT?

»» SPOILER ALERT...IT ISN'T!

SINTRA®

## MARKET PERCEPTION

A higher density expanded foam PVC board provides better impact resistance, a harder surface, a more consistent and flat sheet, plus increased rigidity.

The misconception that a higher density results in a better PVC sheet may cause you to ask for a denser board, but there are other characteristics that should be taken into consideration.



## IF NOT DENSITY, THEN WHAT REALLY MATTERS?

### ■ **IMPACT RESISTANCE**

Why it's important:

Strong impact resistance makes it less likely to crack if hit by an object. This makes Sintra® a good solution for exterior applications when durability is an important feature.

### ■ **SURFACE HARDNESS**

Why it's important:

The superior scratch resistance of Sintra® makes it more user-friendly and durable during handling and installation as compared to a styrene-faced or alternative PVC sheet.

### ■ **THICKNESS CONSISTENCY**

Why it's important:

Sintra® has less deviation from sheet to sheet compared to competitive materials, which benefits printers by preventing costly headstrikes on expensive equipment and providing an even surface for consistent ink placement.

### ■ **WHITE POINT CONSISTENCY**

Why it's important:

By maintaining a consistent white point, Sintra® Bright White produces the same color vibrancy and high-quality printing results throughout the entire print job.

### ■ **RIGIDITY**

Why it's important:

The direction of the grain affects the rigidity of the sheet. Whichever direction the grain runs will be more rigid. Sintra® has less variance in grain direction values than competitive materials, meaning it will be less noticeable if a sheet is cut in both directions. See page 2 for more information on rigidity.

# THE REALITY BEHIND RIGIDITY

»» IT'S ALL ABOUT THAT GRAIN DIRECTION



## GRAIN DIRECTION AFFECTS RIGIDITY!

- During manufacturing, the extrusion process stretches air pockets within the sheet thereby creating a grain direction.
- Whichever direction the grain runs will be most rigid:
  - Runs across the short dimension = a flexible sheet (image A)
  - Runs in the long dimension = a much more rigid sheet (image B)

A piece of Sintra® has been cut with the grain running in the short dimension, creating a very flexible board.



Image A



Image B

Another piece of Sintra® has been cut with the grain running in the long dimension, noticeably increasing its rigidity.

- This becomes noticeable when materials are cut both short & long grain for the same job, so pay attention to grain direction when cutting so that rigidity expectations can be met.

## PRODUCT AVAILABILITY

	Gauges	Colors	Sizes
e-pvc™	3mm, 4mm, 5mm, 6mm	Bright White Black	48" x 96", 50" x 100", 60" x 120" custom sizes available
Sintra®	1mm, 2mm, 3mm, 6mm, 10mm, 12.7mm, 19mm	Bright White Black Gray Light Gray Dark Red Bright Yellow Dark Green Dark Blue Custom Colors	1Mx96"; 48"x96"; 48"x120"; 50"x100"; 60"x96"; 60"x120"; 2Mx120" custom sizes available
<b>NEW!</b> Sintra® Eclipse	3mm, 6mm, 12.7mm	White Front Facer on Standard Black Sintra®	48" x 96"

## CUSTOM SIZE SINTRA!

Don't see the size you're looking for? No problem! With 3A Composites' manufacturing experience and ingenuity, we are able to quickly turnaround most any custom size you want. Just give your friendly local sales or customer service representative a call to find out more information. Not sure who to contact? Find your local representative at [www.graphicdisplayusa.com/sales-manager](http://www.graphicdisplayusa.com/sales-manager)



800.626.3365  
graphicdisplay.com

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