

Thirsty

THURSDAY

QUENCH YOUR THIRST FOR **TECHNICAL KNOW-HOW**

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NGA
NATIONAL GLASS ASSOCIATION

QUENCH YOUR THIRST FOR
TECHNICAL KNOW-HOW

Finding a Common Language for Glass Lingo




Michael Saroka
Chief Product Officer
Goldray Glass

NGA UPCOMING EVENTS

**NGA Glass Fabricator
Conference (GFAB)**
June 14-17, 2026

GlassBuild America
Sept 23-25, 2026

NGA
NATIONAL GLASS ASSOCIATION



GFABTM

**Join over 150 of your friends in fabrication
Learn more at glass.org/GFAB**

JUN 14-17, 2026

CHICAGO



JUN 14-17, 2026

CHICAGO

You belong at GFAB, if:

- You are a glass fabricator
- You are a supplier partner
- You are an executive/decision maker
- You are a glass industry technical, engineering leader
- You are a plant production floor leader (manager, quality control, maintenance, tempering)

Executive Track

High-level, industry-specific programming for execs, VPs, strategic leaders

NGA Glass Conference Track

Meetings for NGA's Fabricating, Forming and Advocacy Committees

GFAB Workshop

Quality Control in Glass Tempering
Workshop for plant leaders

GFAB Lab

A brand new interactive table top networking zone with competitions, prizes, new technologies on display and more

Networking

Receptions
Annual Fun Run
Chicago Architectural Boat
Tour
NGA Volunteer Awards
Dinner

JUN 14-17, 2026

CHICAGO

SEPT 23-25, 2026 | LAS VEGAS

GlassBuild 
A M E R I C A 
THE GLASS, WINDOW & DOOR EXPO

Presented by **NGA**

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FINDING A COMMON LANGUAGE FOR GLASS LINGO

Glass Nomenclature.

A common written format for lites, surfaces, laminates, and insulating units – built so people and computers can read the same spec the same way.

— THE PROBLEM

Three people, one piece of glass, three different descriptions.

HUMAN DESCRIPTION

AMBIGUOUS

"Quarter-inch tempered outboard, half-inch air gap, and another quarter-inch with the low-E on the inside."

"6mil temp, 12.7 argon, 6mil low-E #2."

"Standard 1" IGU, tempered, low-E surface 3 if you can."

All three describe **the same product**. A computer can't tell.

SCHEMA 1

ONE STRING

6FT [12.7Ar] 6*HS

One line. Six fields. No interpretation required.

Same fields, same order, every time. **Computers and humans agree.**

— THE IDEA

It's a shipping label for glass.

You don't write a paragraph to your shipper. You fill in the same fields in the same order — and anyone, anywhere, can read it.

Glass nomenclature works the same way.

OUTBOARD	6 FT · low-E #2
CAVITY	12.7 mm · argon
INBOARD	6 HS · 1.52 PVB · 6 HS

SPEC	6*FT [12.7Ar] 6HS, 6HS-1.52b
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— WHAT WE'LL COVER

Four parts. One string.

<p>§ 01</p> <h2>The Lite</h2> <p>6FT{LI}</p> <p>A single sheet of glass. Thickness, kind, material.</p>	<p>§ 02</p> <h2>Surfaces</h2> <p>a6FT*</p> <p>Coatings, mirrors, etch, frit, paint — on each face.</p>	<p>§ 03</p> <h2>Lamination</h2> <p>6, 6-1.52b</p> <p>Two or more plies bonded by an interlayer.</p>	<p>§ 04</p> <h2>Insulating</h2> <p>6 [12.7Ar] 6</p> <p>A sealed cavity of air or gas between lites.</p>
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COMBINED

6*FT [12.7Ar] 6HS, 6HS-1.52b

— ONE RULE BEFORE WE START

Millimeters, end to end.

The schema uses metric throughout. When every layer is in the same unit, you can **add the parts in your head** and know the total thickness of the unit.

An imperial reference table lives in the appendix of FB78-25.

EXAMPLE IGU · SUM OF LAYERS

<u>6</u>	outboard lite · 6.0 mm
<u>12.7</u>	cavity · 12.7 mm
<u>6</u>	inboard lite · 6.0 mm
= 24.7	total · 24.7 mm

≈ 1" insulating unit

— SECTION 01

01 The Glass Lite.

A single sheet of glass – the smallest unit of the schema. Every spec begins here.

A number, and (optionally) two letters.

6FT

6 Thickness in millimeters

FT Kind code – fully tempered

DEFAULT

No kind code → annealed is assumed.

KINDS OF FLAT GLASS

CODE	KIND
AN	Annealed · default
HS	Heat-Strengthened
FT	Fully Tempered
CS	Chemically Strengthened

10

10 mm annealed

6FT

6 mm tempered

2CS

2 mm chem-
strengthened

In braces, after the thickness.

3FT {LI}

3 mm · fully tempered · low-iron

No braces? It's **clear annealed glass** — the default of the default.

10

10 mm clear annealed

6{PC}

6 mm polycarbonate

CODE	MATERIAL	CODE	MATERIAL
CL	Clear	BG	Blue-Green
LI	Low-Iron	BL	Blue
MI	Mid-Iron	GN	Green
BR	Bronze	GY	Gray
PLASTIC GLAZINGS			
PC	Polycarbonate		
AC	Acrylic		

For colors not in this table, write the descriptive name in the braces.

— SECTION 02

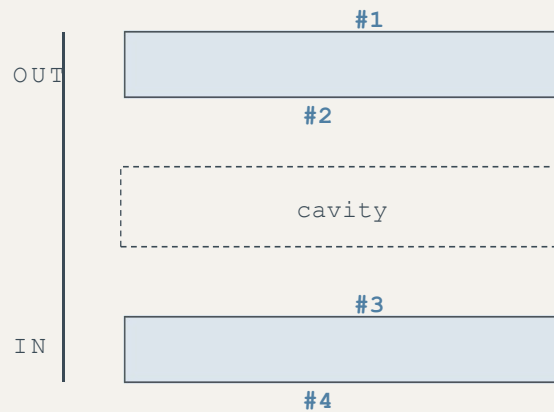
02 Surfaces.

Every lite has two faces. What you put on those faces – coatings, etch, frit, paint – is where high-performance glass is made.

— POSITION = SURFACE

Where the code sits tells you which face.

IGU · CROSS SECTION



Surfaces are numbered from outside in. So position in the string carries meaning — you don't write "surface 2," you put the code where surface 2 lives.

a6FT code **before** the thickness → on the **outboard** face

6FTr code **after** the thickness → on the **inboard** face

— SURFACE CODES

Six single characters. One double asterisk.

CODE	SURFACE TREATMENT
*	Low-E or reflective coating
r	Mirrored surface
a	Acid-etched surface
f	Fritted surface
d	Digital print
p	Painted / roll-coated
**	Named manufacturer coating

IN PRACTICE

6r
6 mm clear mirror – coating on surface 2

a10FT{LI}
10 mm tempered low-iron, acid etch on surface 1

6*HSBrand XY**
6 mm heat-strengthened with Brand XY low-E on #2

Codes carry the **function** . The brand name carries the **product** .

— SECTION 03

03

Lamination.

Two or more lites bonded together by an interlayer. Where most of the writing mistakes get made – and where the schema saves you the most time.

— STEP 03 · LAMINATION

Lites by comma. Interlayer by hyphen.

6FT, 6FT-1.52b

6FT , **6FT**

Two 6 mm fully-tempered lites

comma between plies - outboard first

- 1.52

Interlayer is 1.52 mm thick

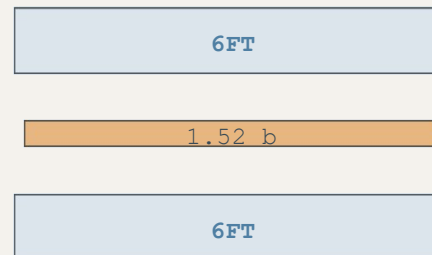
hyphen says "laminated with"

b

PVB — polyvinyl butyral

interlayer type code

EXPLODED · CROSS SECTION



— INTERLAYER CODES

The letter after the decimal number.

FILM & SHEET

b	Polyvinyl Butyral · PVB · most common
ip	Ionomer · stiff, structural
u	Polyurethane · PU / TPU
ev	Ethylene-Vinyl Acetate · EVA

LIQUID / CURE

e1	Liquid Crystal Polymer — Epoxy
1c	Liquid Resin — Multi-Component
1u	Liquid Resin — UV Cure

Color or brand can be appended after the code. For codes outside this table, see sgcc.org.

0.76b

0.76 mm PVB

1.52ip

1.52 mm ionomer

1.27u

1.27 mm TPU

— SAME GRAMMAR, MORE LAYERS

Just keep listing the plies.

THREE-PLY · ONE INTERLAYER

6, 6, 6-1.52b

All three plies bonded by the same 1.52 mm PVB. Interlayer written once.

THREE-PLY · MIXED INTERLAYERS

6, 6, 6-1.52b, 2.29b

Different interlayers? List each one, in order, separated by commas.

GLASS · POLYCARBONATE · GLASS

6, 6{PC}, 6-1.27u

A security/bullet-resistant build. Material braces are reusable – they sit on any ply, glass or otherwise. Same grammar.

— SECTION 04

04

Insulating Glass.

Two or more lites with a sealed cavity between them. The cavity gets its own punctuation – square brackets.

Square brackets mean "air gap."

6 [12.7Ar] 6

[] Square brackets enclose the cavity
visual cue: "there's a gap here"

12.7 Gap thickness in millimeters
one decimal place

Ar Gas fill code
no code = air

CAVITY FILLS

-	Air · default, no code
Ar	Argon
Kr	Krypton
v	Vacuum

[12.7]	12.7 mm air gap
[15.9Ar]	15.9 mm argon-filled
[0.4v]	0.4 mm vacuum (VIG)

— ALL FOUR PARTS · ONE STRING

A laminated low-E argon IGU, read left to right.

6*FT [12.7Ar] 6HS, 6HS-1.52b

SEGMENT 1

6*FT

6 mm fully-tempered, low-E coating on surface 2 – the **outboard lite**

SEGMENT 2

[12.7Ar]

12.7 mm argon-filled cavity – the **insulating gap**

SEGMENT 3

6HS, 6HS

Two 6 mm heat-strengthened plies – the **laminated inboard**

SEGMENT 4

-1.52b

Bonded by a 1.52 mm PVB **interlayer**

One string · five physical layers · **same meaning every time it's read.**

— READ ANY SPEC

You can decode these now.

3,3-0.76b

3 mm · 0.76 mm PVB · 3 mm — basic safety lam

5,5-1.52ip

5 mm · 1.52 mm ionomer · 5 mm — structural lam

6HS [12Ar] 3,3-1.52b

6 HS · 12 Ar · 3+3 PVB lam — laminated IGU

6,6,6,6-1.52b

Four 6 mm plies, all 1.52 PVB — multi-ply security lam

4FT [0.4V] 4FT [10Ar] 6HS

VIG triple: 4 FT · vacuum · 4 FT · argon · 6 HS

6,3-1.52b [12Ar] 2 [12Ar] 3,3-0.76b

Laminated triple with picture-glass middle

— UP NEXT

Now, the demo.

Schema 1 in real ordering & quoting workflows. Bring your questions.

FB78-25

SCHEMA 1

NGA · MAY 2025

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Goldray Glass
mike@goldrayindustries.com

Access the Glass
Nomenclature Tool
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glass.org/webinars

NGA Upcoming Webinars

GlassBuild America Exhibitor Logistics

June 11 at 11:00 am ET

Window+Door Manufacturing Report

June 18 at 1:00 pm ET

GlassBuild America MyPlanner*

July 22 at 11:00 am ET

**for registered attendees and exhibitors of GlassBuild only*