

Understanding the Glass Standards

Glass and perfect don't go together in the same sentence. There will always be something that the fussiest customer will complain about. Your two options are curling up with a bottle of Southern Comfort or understanding the glass standards that are used within our industry.

The basic standard is ASTM C 1036-06. This means: American Society for Testing and Materials, Standard # C1036, updated in 2006. If you want to download the full standard (for a small fee) go at ASTM.org and you will see the breadth of their offerings. You may be able to get a full copy from your glass wholesaler or key fabricator.

This is the standard for flat glass, that is annealed glass coming from the floaters. Tempered and laminated glass have different standards which we'll discuss in the future. But this is the parent of all the standards. If something is allowable by this standard, it is allowable in tempered or IG, or Lami, or whatever. I cannot stress how important it is for you to use this standard. Your vendors do. I bet every glass shop in America has called up their fabricator complaining about a small scratch on Mrs. Johnson's IG unit, and hears that it is within standards. You must understand these standards, and be able to manage your installs and problems using C1036-06 as a guideline.

Let's look at the standard. Again, this is for annealed glass, coming from the floater, or going to you, or to your customer. there are various sections in the standard, here is section 1.3: "The specification cover the quality requirements of flat, transparent clear, and tinted glass. This glass is intended to be used primarily for architectural glazing products including: coated glass, insulating glass units, laminated glass, mirrors, spandrel glass, or similar uses." This covers it all. Your products are in this list.

The next point to understand is there are 4 different qualities of glass mentioned, Q1, Q2, Q3, and Q4. Each has different standards, with Q1 being the fussiest and Q4 the most lax. Q1 is defined as glass for high-quality mirrors, Q2 for general use mirrors, Q3 for "Production of architectural glass products including coated, heat treated, laminated and other glass products.", and Q4 as general glazing applications.

The average glass shop should expect their products to meet Q3. Here are some examples of the Q3 standard:

- Blemishes under 1.2 mm allowed
- Blemishes 1.2-2.0 mm allowed if 24" apart
- Blemishes over 2.0 mm not allowed

So if there is on small blemish in a piece delivered to you, you own it.

Let's look at one other part of the standard--The Q3 "allowable Shell Chip Size", which details what size chips are allowed:

- Chip Depth Less than or equal to 50% of glass thickness
- Chip Width Less than or equal to glass thickness
- Chip Length Less than or equal to 2 times the chip width.

So if you sell 'perfect glass' and promise beautiful glass, you may not be able to purchase beautiful glass from your fabricator. Sure, you can buy two of every order, and one will be better than the other, but you won't be in business for more than a week or two. Ask your fabricator what standards they use, and if they do the same or better than C1036. That answer is what you have to sell to.