Glass Identification

Safety Glazing Identification Code

A *safety glazing identification code* is located in one of the four corners of each sheet of glass. The code is made up of a number of individual codes that identify the quality and properties of the glass. Coding includes the manufacturer's name or code, a safety glazing code required by the Federal Government and, if appropriate, an IGCC code, an ANSI code and a SGCC code. Each type of code is described below.

IGCC-244 CBA

IGCC-324 CBA

Examples of IGCC codes.

The safety glazing identification code refers to the individual sheet of glass. It does not indicate the manufacturer who assembles individual sheets of glass into multiple pane units. The glass assembly manufacturer is indicated on the AW logo, also found in one of the four corners of the glass panel. For example if Cardinal manufactured an insulating unit glazed with PPG glass, each pane would have a safety glazing identification code that indicates PPG as the manufacturer and the combined unit would have a glass logo that indicates Cardinal is the manufacturer.

CIG #2 TEMPERED
16CFR 1201 II
SGCC-1827 1/8 U

Cardinal IG Tempered (safety) Glazing codes

The dates found in the safety glazing identification code are not glass manufacture dates. Glass manufacture dates are found in the AW logo.

PPG HERCULITE K
TEMPERED SAFETY GLASS
16CFR201 CII
ANSI Z-97.1-1975 1/8" O
SGCC-295 ISGH 367II

PPG Glass. ANSI and Safety Glazing codes.

Safety Glazing Code

All safety glazing must be identified with safety glazing codes as determined and directed by the Federal Government. Variations in the code indicate different degrees of safety glazing. Federal coding appears in the following format:

16 CFR 1201. C II

FORD TEMPERED
SAFETY GLASS
ANSI Z97.1 -1975
SGCC-342/729
16 CFR 1201. II

Ford Glass ANSI and Tempered Codes.

IGCC Codes

The IGCC code is issued by the Insulating Glass Certification Council for use on organic or metal-edged insulated glass. The certification process has three categories: C, B, or A. These are granted depending on the results of an accelerated test on unit.

TUF-FLEX® FT 1/4' -U B
TEMPERED SAFETY GLASS
ANSI Z 97.1 - 1975 SGCC 352
16 CFR 12014 II SGCC 847

LOF ANSI and Tempered Codes

The IGCC provides a number that identifies the product and the plant where the product was manufactured. For example, a code of IGCC CBA 0123 indicates that the glass meets the requirements of all three categories and that the product was produced in a plant identified with 123.

ANSI Codes

ANSI stands for the American National Standards Institute. The standard ANSI Z-97.1 designates safety glass. This code along with the SGCC (Safety Glazing Certification Council) code number, indicates that glass meets established standards of safety glazing quality and performance.

Cardinal IG Glass Identification

Logo Date Identification

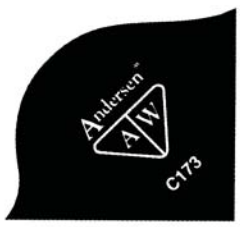


Fig 1. 1970-74.
Identified quarter/year of manufacture.

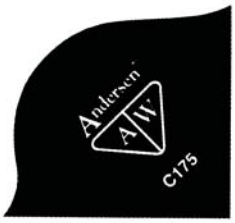


Fig 2. 1975-84.
Identified month/year of manufacture.

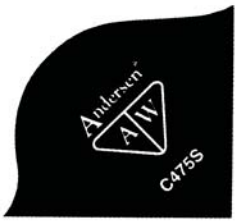


Fig 4. 1975-83.
Added plant manufacturing designations.

Fig 5. IGCA code added below the AW logo.

Fig 6. 1987. Glass date to year/quarter. Moved over logo.

Fig 7. 2001–2004

Fig 8. 2004–Present

1970 to 1975 Andersen first used Cardinal glass in the third quarter of 1970. The glass date, located directly under the AW logo (figure 1) consisted of the letter “C”, followed by a number indicating the quarter and two numbers indicating the year. For example, C173 indicates Cardinal glass manufactured the first quarter of 1973.

1975 to 1984 In 1975 Cardinal began to identify the month of manufacture in the logo (figure 2). For example, C175 indicated Cardinal glass manufactured in January 1975. The numerical month/year designation continued until July 1984 when Cardinal returned to a quarter/year designation.

In January 1975 Cardinal began to use plant designations of “M” or “G” after the glass date. In 1981 they added an additional plant designation of “S” (figure 4).

In 1979 Cardinal added the IGCC code (figure 5) under the AW logo.

1984 to 1987 In 1984 Cardinal stopped using the letter codes to designate plant manufacturing locations, and switched to a number code after the C or CIG (for Cardinal IG).

1987 to 2001 In the 2nd quarter of 1987, the glass date changed back to year and quarter (figure 6), and the date and IGCC code were relocated over the logo. The number after CIG indicates manufacturing plant location.

2001 to 2004 In the first quarter of 2001, the text was moved to an “L” shape to emphasize the Andersen® brand name and triangle (figure 7). Use of a laser provided crisper images. NFRC codes were added to identify product line. The HP version (for example, .7) was moved from behind the date code (CIG-3 2-02.7) to behind the plan code (CIG-3.7 2-02).

2004–Present In the 3rd quarter 2004, logo artwork was changed. Names of glass types on logo changed (for example, High-Performance is now HP Low-E) (figure 8).

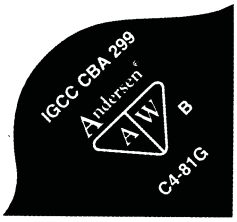


Fig 7. Bronze (B) or grey (G) indicated at side of logo.

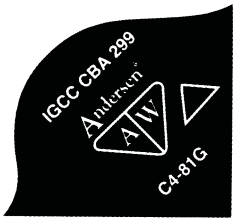


Fig 8. High-altitude shown by triangle.

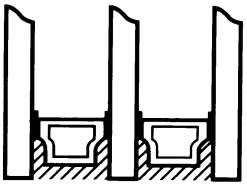


Fig. 9. 1981-83. Triple-pane glass profile.

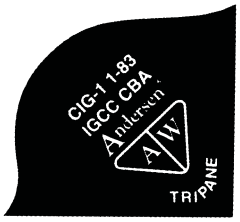


Fig 3. 1981-83. Tripane.

Special Glazing

Bronze and Gray Glass

From 1971 to 1985 Cardinal supplied Andersen with bronze and gray tinted glass. Tinted glass is indicated with a “B” or “G” next to the AW logo (figure 7). Bronze and gray glass were discontinued in 1985; replacement glass is available for warranty only.

High Altitude Glass

Cardinal supplied high altitude glass through 1987. It is indicated by a triangle next to the AW logo (figure 8).

Triple Pane Glass

Cardinal supplied Andersen with triple pane glass from mid-1981 through 1983. Triple pane glass (figure 9) is made of three panes of glass sealed together. The middle light of glass may have a small hole drilled in one corner to allow the two air spaces to equalize pressure. Date codes say “tripane” (figure 3).

High-Performance™ Glazing

High-Performance™
High-Performance glass was introduced in mid-1983. To indicate High-Performance glass, Cardinal stamped "HP" next to the AW logo (figure 10). In July 1984 the symbol was changed to spell out "High-Performance" under the AW logo (figure 11), and the glass date was moved above the logo.

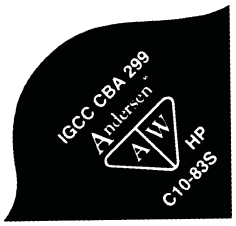


Fig 10. 1983. HP next to AW logo for HighPerformance.

High-Performance™ Sun
In July 1985 High-Performance™ Sun glazing was introduced to replace bronze and gray glass (figure 12). From 1985 to mid-1990 HP Sun had a bronze tinted exterior light with a low emissivity coating on the logo surface.

Fig 11. 1984. High-Performance spelled out.

High-Performance™ Sun II
In mid-1990 Andersen introduced High-Performance™ Sun II glazing with a gray tone (figure 13).

Note:
It is important to differentiate between High-Performance™ Sun glass produced from 1985 to mid-1990, with a bronze tinted exterior, and High-Performance™ Sun II introduced in mid-1990 with a gray tone. It is not advisable to mix these products in the same building.

Fig 12. 1985-90. High-Performance Sun.

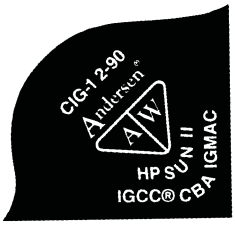


Fig 13. 1990. High-Performance Sun II.

Fig 14. Logo close to ANSI Code in lower right corner.

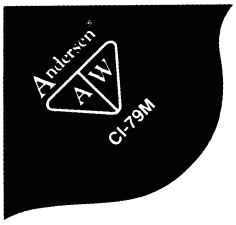


Fig 15. Logo moved to either upper corner, away from ANSI.

Tempered Glazing

Coding on tempered glass for patio doors is the same as High-Performance glazing. The logo prior to 1976 is shown in figure 14. Figure 15 shows the logo after 1976.

Glass Spacer Identification

1970 to 1973	Aluminum spacers, corner keyed.
1974 to 1977	Galvanized steel spacers with brazed corners.
1977 to 1978	Aluminum spacers with soldered corners.
1978 to 1979	Aluminum spacers bent at three corners, soldered at one.
1979 to 1990	Cardinal stamped their name on the spacer.
1990 to Present	“Andersen” is stamped on all spacers except those for 3/8˝ organic replacement stainless steel.

PPG Industries, Inc. Glass Identification

Window Logo Date Identification

Prior to 1975 Glass dates on all PPG window units have a number to the left of the AW logo representing the month and a number to the right representing the year (figure 1).

After 1975 In July 1975 PPG added a “1” or “0” after the year to designate factory of origin (figure 2).

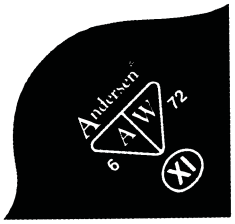


Fig 1. To 1975. Month to the left, year to the right of AW.

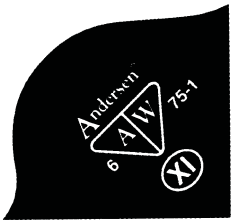


Fig 2. From 1975 on. “1” or “0” designates factory location.

Patio Door Logo Date Identification

Annealed tempered glass was available prior to 1971. For both types of glass, the name “Twindow” appears below the AW logo (figure 3). On tempered glass, the ANSI code is included below the logo. After 1970 Andersen stopped using annealed glass in door panels, making tempered glass standard in all patio doors. If the name “Twindow” is not present on organic PPG units, it is not a PPG unit. When present, the name “HERCULITE K” refers to the tempered glass, not to the insulated glass unit.

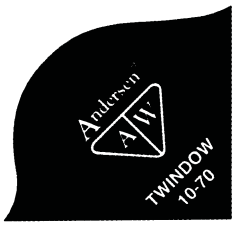
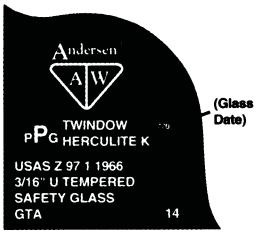
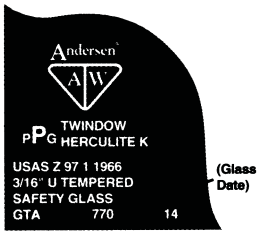


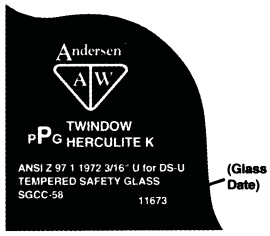
Fig 3. Patio Doors. Always with PPG name “Twindow”.



Manufactured prior to 1970.



Manufactured 1970-72.



Manufactured 1973-78.

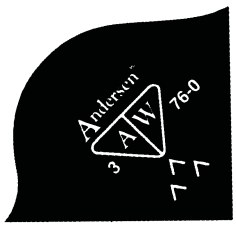


Fig 4. High altitude glass.

High Altitude Glass Identification

1972 to 1974	High altitude glass designated by “7500” under the AW logo.
1974 to Present	High altitude designation was changed to a “△△” located under the logo (figure 4).

Glass Spacer Identification

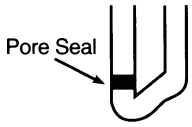


Fig 5. Glass Edge “Twindow”.

Welded Glass

Welded glass is sealed at the edge. A vent is drilled in the glass to replace the air with a dry inert gas, then sealed (figure 5). The pore seal is located one inch from the corner of the glass. The pore seal is part of the PPG manufacturing process; it is not a glass defect.

Organic Glass

PPG organic glass has a metal spacer and a crimped standing rib, making PPG glass easy to identify (figure 6). From June 1975 through 1978, Andersen purchased only high altitude door panels from PPG. After 1978, Andersen discontinued use of PPG door panels.

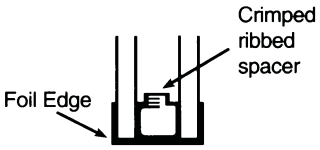


Fig 6. Organic Insulation Glass “Twindow”.

Libby-Owens-Ford Co. (LOF) Glass Identification

Tempered LOF insulated units have an ANSI code in the lower corner (figure 9). Before July 1976, the AW logo and glass date were also in the lower corner, opposite the ANSI code. After July 1976 the logo and glass date were moved to the upper left corner, as viewed from the inside.

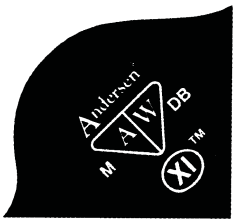


Fig 1. Plant location to left of logo. Month/year to right.

Window Logo Date Identification

1970 to 1984

Manufacturing plant locations are indicated by an “M” or a “C” to the left of the AW logo (figure 1). To the right of the logo are two letters, the first indicates the month and the second the year of manufacture. The following chart shows the letter code used to signify each month and year.

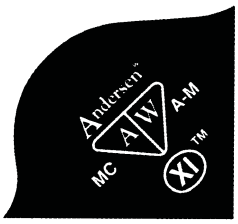


Fig 2. 1984, “C” added to left letter.

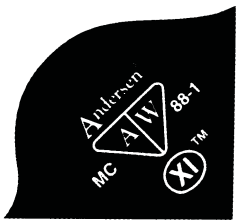


Fig 3. 1988, year/quarter identified by numbers.

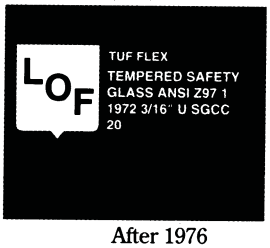
1st (left) letter is MONTH		2nd (right) letter is YEAR			
A	Jan	**Y**	1970	**K**	1982
B	Feb	**Z**	1971	**L**	1983
C	Mar	**A**	1972	**M**	1984
D	April	**B**	1973	**N**	1985
E	May	**C**	1974	**O**	1986
F	June	**D**	1975	**P**	1987
G	July	**E**	1976	**Q**	1988
H	Aug	**F**	1977	Numerical code begins 1988	
I	Sept	**G**	1978		
J	Oct	**H**	1979		
K	Nov	**I**	1980		
L	Dec	**J**	1981		

1984 to 1988

In 1984 LOF discontinued the “C” plant designation. They also added a “C” to the “M” plant designation to signify that a new 26-year letter cycle was beginning (figure 2).

1988 to 1991

LOF began using numbers instead of letters (figure 3) to designate year and quarter. For example, MC - AQ would now read MC - 88-1 to signify first quarter, 1988. Andersen discontinued use of LOF glass in November 1991.



After 1976

Pre-1976

Fig. 9 This manufacturing logo is in the corner opposite the AW logo.

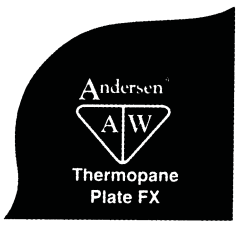


Fig 4. Patio Doors have "Thermopane" under the logo.

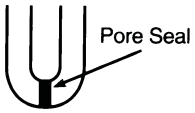


Fig 5. LOF GlasSeal standard welded glass.

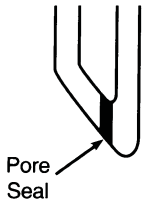


Fig 6. '83 redesigned edge profile.

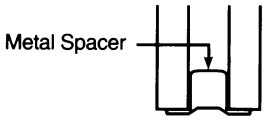


Fig 7. LOF organic.

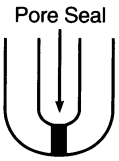


Fig 8. GlasSeal Discontinued Jan, '71.

Patio Door Logo Date Identification

LOF patio door panels are signified with the word "Thermopane" under the AW logo. Thermopane is the LOF registered trade name for insulated glass, and appears on all LOF manufactured organically sealed units (figure 4). Below this name are the words "plate" or "float," then the glass date. When present, the name "TUF FLEX" refers to the tempered glass, not to the insulated glass unit.

Glass Spacer Identification

Welded Glass

LOF welded glass is sealed at the edges. The pore seal is located at the edge of the glass. There are two pore seal profiles—prior to July 1983 (figure 5) and after July 1983 (figure 6).

Organic Glass

Some Andersen windows and doors use LOF brand organically sealed glass (figure 7). Prior to 1971, some door units used welded, annealed glass provided by LOF (figure 8). All tempered LOF units have the manufacturing logo in the opposite corner of the AW logo (figure 9).