

# KRYSTALCAST® TECHNICAL SPECIFICATIONS

## STANDARD AVAILABLE PANEL THICKNESS

FRACTION (IN INCHES)	ACTUAL THICKNESS (IN INCHES)
1/4"	0.220/0.236 INCH
3/8"	0.354 INCH
1/2"	0.472 INCH
3/4"	0.708 INCH
1"	0.944 INCH
1 1/4", 1 1/2", 2", 3", 3 1/2", AND 4"	

## STANDARD AVAILABLE PANEL SIZES

THICKNESS (IN INCHES)	LENGTH X WIDTH
1/4"	48" X 96"
1/2"	48" X 96" 48" X 120" 60" X 96" 60" X 120"
3/4"	72" X 96" 48" X 96" 60" X 96" 72" X 96"
1"	48" X 96" 60" X 96" 72" X 96" 48" X 120" 60" X 120" 72" X 120"
1 1/4" AND 1 1/2"	48" X 96" 60" X 96" 72" X 96"
2", 3", 3 1/2" AND 4"	48" X 96" 60" X 96" 72" X 96"

NOTE: CUSTOM SIZE AND THICKNESS ARE AVAILABLE IN PANELS OR CUT TO YOUR SPECIFICATIONS ON OUR CNC  
120" IS THE MAXIMUM LENGTH PER SHEET, BONDING AND CONNECTORS ARE AVAILABLE FOR SIZES OVER 120"

## APPROXIMATE WEIGHT

THICKNESS (IN INCHES)	WEIGHT (LB/SF)	GLASS COMPARISON (LB/SF)
1/4" / 0.236 INCH	1.5 LB/SF	3.3 LB/SF
3/8" / 0.354 INCH	2.25 LB/SF	4.9 LB/SF
1/2" / 0.472 INCH	3 LB/SF	6.4 LB/SF
3/4" / 0.708 INCH	4.5 LB/SF	9.6 LB/SF
1" / 0.944 INCH	6 LB/SF	12.8 LB/SF

## APPROXIMATE IMPACT

MATERIAL	THICKNESS (IN INCHES)	STEEL BALL DROP (LB)
KRYSTALCAST®	1/4" / 0.236 INCH	5 LB
WINDOW GLASS	1/8" / 0.125 INCH	0.25 LB
PLATE GLASS	1/4" / 0.25 INCH	0.25 LB
SAFETY GLASS	1/4" / 0.25 INCH	0.25 LB

NOTE: KRYSTALCAST® MEETS ANSI Z 97.1 SAFETY GLAZING MATERIAL USED IN BUILDING STANDARDS  
KRYSTALCAST® IS SUITABLE FOR USE IN CONSUMER PRODUCTS SAFETY COMMISSION, SAFETY STANDARD FOR  
ARCHITECTURAL GLAZING MATERIAL UNDER 16 CFR 1201, CAT. I & II

## PHYSICAL PROPERTIES

NOTE: BASED ON 1/4" / 0.236" KRYSTALCAST® PANEL THICKNESS

SPECIFIC GRAVITY ASTM D-792	1.19
REFRACTIVE INDEX ASTM D-542	1.49
LIGHT TRANSMISSION ASTM D-1003	92%

## CONTRACTION AND EXPANSION

NOTE: KRYSTAL**CAST**® PANELS WILL EXPAND AND CONTRACT WITH CHANGES IN TEMPERATURE  
THE COEFFICIENT OF THERMAL EXPANSION FOR KRYSTAL**CAST**® IS .00004

EQUATION: PANEL SIZE (IN) X CHANGE IN TEMPERATURE (°F) X COEFFICIENT (.00004) = MOVEMENT (IN)

EXAMPLE: 48" X 96" KRYSTAL**CAST**® PANEL AT 32°F  
(96") X (32°F) X (.00004) = .123" (1/8")

## MECHANICAL SPECIFICATIONS

TENSILE STRENGTH ASTM D-638	10,000 PSI
MODULES OF ELASTICITY	400,000 – 450,000 PSI
COMPRESSION STRENGTH ASTM D-695	17,000 – 18,000 PSI
FLEXURAL STRENGTH ASTM D-790	16,000 – 17,000 PSI
ROCKWELL HARDNESS ASTM D-785	M90 – M94

## MAXIMUM CONTINUOUS SERVICE

TEMPERATURE	215°F
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## COEFFICIENT OF THERMAL EXPANSION

ASTM D-696	4 X 10-5 IN/IN °F
COEFFICIENT OF THERMAL CONDUCTIVITY	1.3 BTU-IN/HR-FT SQ-°F

## FLAMMABILITY

SMOKE DENSITY ASTM D-2843	4% – 10%
HORIZONTAL BURN (0.125") ASTM D-635	1.0 – 1.2 IN/MIN
SELF IGNITION TEMPERATURE ASTM D-1929	850°F – 910°F

## DRILLING

IF HOLES ARE TO BE DRILLED INTO KRYSTAL**CAST**®, FOR BEST RESULTS USE DRILLS THAT ARE SPECIFICALLY DESIGNED FOR PLASTICS (60° – 90° TIP ANGLE).

## FASTENING SYSTEM

KRYSTAL**CAST**® PANELS CAN BE INSTALLED USING MECHANICAL FASTENERS, SUCH AS STANDOFFS OR BOLTS. WHEN INSTALLING HARDWARE, DO NOT OVER-TIGHTEN THE FASTENERS. NYLON OR RUBBER WASHERS OR GROMMETS MAY BE USED.

## ROUTING OR CUTTING

KRYSTAL**CAST**® CAN BE ROUTED BY USING PORTABLE ROUTERS. THIS METHOD CAN BE USED FOR CUTTING PANELS TO SIZE, TRIMMING PANELS, AND CUTTING OPENINGS AND HOLES. ROUTING IS THE BEST METHOD FOR TRIMMING THE EDGE OF A PANEL.

## MAINTENANCE AND CLEANING

KRYSTAL**CAST**® CAN BE RESTORED TO ITS ORIGINAL FINISH BY USING A 3M GREEN PAD.  
FOR DEEP SCRATCH REMOVAL, USE 320 GRIT AND 400 GRIT SAND PAPER FOLLOWED BY A 3M GREEN PAD TO ACHIEVE THE SAME SATIN FINISH.  
EVERY DAY CLEANING CAN BE ACCOMPLISHED BY WASHING WITH WARM WATER AND A MILD SOAP OR DISHWASHING LIQUID.  
CAUTION: DO NOT USE SOLVENTS SUCH AS ACETONE, LACQUER THINNER, GASOLINE, UNDILUTED ALCOHOL OR BENZENE ON KRYSTAL**CAST**® SURFACES OR PANELS.

## TABLE AND COUNTERTOP

IT IS NOT RECOMMENDED THAT HOT COOKWARE OR PANS BE PLACED DIRECTLY ON THE SURFACE. ALWAYS USE A HOT PAD UNDER PANS AND COOKWARE THAT ARE TO BE PLACED DIRECTLY ON A KRYSTAL**CAST**® TABLE OR COUNTER.

## SUSTAINABILITY

KRYSTAL**CAST**® CAN BE RECYCLED IF RETURNED TO US AFTER THE LIFE OF THE PROJECT HAS ENDED. PLEASE ASK US ABOUT KRYSTAL**CAST**® GREEN. KRYSTAL**CAST**® GREEN WILL USE CERTIFIED MDF FOR TABLE TOPS (WITH A 30% UPCHARGE).

## COLOR

KRYSTAL**CAST**® CAN BE MATCHED TO MORE THEN 3,500 + BENJAMIN MOORE COLORS. PLEASE ASK ABOUT OUR FEATURED COLORS.

## CUSTOM INLAID MATERIALS

MATERIALS SUCH AS METAL MESH, METAL GRIDS, WIRES, FOLIAGE, PAPERS, ETC. CAN BE INLAID INTO CLEAR OR TINTED KRYSTAL**CAST**® PRODUCTS. PLEASE CONTACT YOUR LOCAL REPRESENTATIVE OR THE KRYSTAL**CAST**® HEADQUARTERS FOR MORE INFORMATION ON DESIGNING YOUR OWN MATERIAL. IF YOU CAN DESIGN IT, WE CAN FABRICATE IT.

## CNC MILL

KRYSTAL**CAST**® HAS ON SITE CNC MILL AND COLD ROLLING CAPABILITIES. PLEASE ASK YOUR LOCAL REPRESENTATIVE OR THE KRYSTAL**CAST**® HEADQUARTERS ABOUT OUR FACILITIES AND CAPABILITIES. WE ARE EQUIPPED TO WORK FROM YOUR DESIGNS AND DRAWINGS.