



Next Bridge

Float Glass
Industry Corporation

From Hard Stone
Transparent Glass

NBEC

Export Company

Holding Group

The Premier National Entrepreneurship
The Premier National producer
T h e P r e m i e r E x p o r t e r

A thousand years passed when man used sharp glass stone for defense and hunting.

No one knows the name of the man, who made colorful dishes, jewel beads or beautiful earrings by cutting glass stone 5000 years ago, but it doesn't matter who was that man, the point is he was the founder of the industry that provides us peace, light, beauty of the houses and modern technologies nowadays.

The Float Glass process was invented by the Crown method around 2600 years ago, in thickness and width with different size of pieces. It took centuries; that the cylinder method drives into society from Monopoly of Palaces. Less than two centuries Sheet method was invented, in result of that, the use of flat glass extended generally. Float process has been around for over 50 years and with a mass production, brings us lights and brightness of the sun.

NBEC Glass Corporation takes advantage of the latest float technological advancements, which based on the efforts of energetic young and knowledgeable staff. Due to this issue, the factory determined by this development of technology and various productions of goods related to float glass industry, can supply the needs of domestic along the Global Growth to take the effective step for the Posterity.

Quality is not accidental; it is always the result of careful thought. State of the art equipment has been selected from all over the world to meet our customer requirements:

Using the most advanced technology in float glass production
Largest single location integrated glass manufacturing line including mines for almost all raw materials (silica, feldspar, dolomite, and limestone) under ownership of the company, active mining workshops, crushing and dressing plants, float glass production line, processing facilities aiming to provide world-class standards with consistent quality.

The largest float glass line in the Middle East with 220,000 tons/year salable glass

Wide ribbon float line –gross ribbon width of 5.2 m

Thickness range: 1.9 m ~ 19 mm

Capable of producing float glass in varied sizes ranging from 1.350 x 2 to 4.88 x 7.2 m

Capable of producing Jumbo (3.21 x 6 m) and Super Jumbo (4.88 x 7.2 m) float glass

Providing a wide range of quality products for various uses such as clear and tinted float glass, reflective glass, laminated glass, double glazing units, decorative glass, etc.

On-line scanning equipment allows complete removal of the defective sheets and 100% guarantee to get good quality glass.

Factory's strategic location has provided exceptional and exclusive opportunity to export products.





NBEC Float Glass Corporation, the producer of any kinds of float glass, according to national standards of Iran, assures to observe all of the national laws and regulations, and to meet the consistently growing demands for high quality float glass in the Middle East countries. AFGC is committed to observe the following essential principles in all aspects of its services including process, technology and business practices.

- Producing highest quality float glass confirming to global standards.
- Expanding the product range to adapt to the changing needs of market dynamics.
- Serving world wide markets.
- Improving customers satisfaction.

NBEC Float Glass Company has chosen the establishment of a Quality Management System based on ISO9001:2008 standards as a strategic approach to achieve these goals.

Management of the company assures to promote the quality and continuous improvement in products, and expects all its dear staff to do their best for the implementation of quality management system and improving company processes through customers' and market's feedbacks.

CEO
Mahmood Azizian



NBEC Float Glass Corporation

This company is established in 2011, and is the greatest manufacturer in its own range in the Middle East region, producing different kinds of glass through float process with thickness range of 1.9 mm to 19 mm.

Using the best materials and latest technologies and fully automated & robotic machineries which are made by using the most famous companies all around the world such as SEPR (French), RHI (Belgium), CNUD (Belgium), Merkel (USA), Bottero (Italy), and raw materials with the highest quality made this company capable to produce grade A and suitable products for mirror and architectural glass based on Japan JIS standard.

Currently by having the biggest glass production furnace in the Middle East region and offering a complete basket of float glass products, **NBEC** Float Glass Company is one of the most complete complex producers of glass in west of Asia.



NBEC Float Glass Company has the ownership of different mines which are crucial for its production and enables the company to have full control over the quality of the glass making raw materials. The mines under the ownership of the company are as follows:

Silica Mine

The silica mine is located at 85km southwest of **NBEC** Float Glass Factory at Naein District. The ore content of the mine is unconsolidated sand with sedimentary origin that is geologically a part of Iran's Top Quartzite Formation. The high purity of the silica ore and the extremely large amount of its deposit makes the company's silica mine as one of the most reliable and valuable resources in production of float glass.



Feldspar Mine

Feldspar mine is located at 78 km northeast of **NBEC** Float Glass Factory at Anjir District. The ore content of the mine is Sodium-Potassium feldspar with metamorphic origin and high purity. Relatively large mineral deposit of the mine placed it in the front rank of best feldspar mines in the country.

Dolomite Mine

The dolomite mine is located at 330 km east of **NBEC** Float Glass Factory at Tabas District. Ore type of this mine is dolomite with sedimentary origin. The main characteristic of the mine is having great amount of deposit, high mineral purity and low iron content that make the mine one of the most valuable raw material resources of the company for producing low-iron float glass.

Limestone Mine

Limestone mine is located at 25 km east of **NBEC** Float Glass Factory. Due to extensive deposit, high purity and homogeneous nature it is considered as one of the best limestone mines in Yazd Province, Iran.





NBEC

Crushing and Dressing Plants





RAW MATERIAL PREPARATION

Crushing and dressing plant is located on a 200,000 square meter plot with 20000 m² ground area in the immediate vicinity of the float glass factory. It is consisting of three distinct workshops for producing silica, feldspar, dolomite and limestone powders. The nominal capacity of the plant is 1500 ton per day of washed, dressed and graded silica powder, 300 ton per day dolomite powder and 240 ton per day limestone powder and is the largest dressing plant in the Middle East.





Quality Control Process

As far as you know, high quality along the reasonable price will be the most important goal for the processing plant, therefore the **NBEC** Glass Company providing procurement and installation of proper machines, which be able to produce required powder according to the international standards.

The key principles of Quality Management are as follow:

- Quality Controls and quality assurance of raw materials.
- Scientific - Quality control of products at all production stages, rely on the advanced laboratory equipment and Pilot test of qualified professionals.
- continuous homogenization of raw materials, during storage at high tonnage, before entering the production process.
- Using powerful and modern magnets at different stages of crushing raw materials.
- Using ceramic liners at the wall of the mill and other paths of powder production.



RAW MATERIAL PREPARATION

The features of raw materials production plant are as follow:

- 1- High quality of productions and free of harmful and heavy metals.
- 2- Guarantee of homogenization in Stability of physical and chemical goods during the contract.
- 3- Sending goods to all regions of the country, in regard to convenient geographic location.
- 4- Produced High - quantity of raw material according to the customer's request.
- 5- Reasonable and competitive price products.
- 6- Providing appropriate aggregation, according to the customer's requirements.

Raw Materials Specifications produced in the Processing plant of **IGBC** GlassFactories

	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	Na ₂ O	K ₂ O	L.O.I
Silica Grade A	98/7±0/3	-	0/4±0/01	0/2±0/05	0/03±0/01	-	-	0/25±0/01
Silica Grade B	98/5±0/2	0/9±0/1	0/7±0/01	0/2±0/05	0/06±0/03	-	-	0/25±0/01
Silica Grade C	98±0/2	1/2±0/1	0/09±0/01	0/3±0/1	0/1±0/05	-	-	0/25±0/01
Dolomite	0/25±0/1	0/1±0/05	0/07±0/03	31±0/3	21±0/3	-	-	47±0/2
Dolomite Fines	1/3±0/5	0/2±0/05	0/2±0/05	30/5±0/3	20/7±0/2	-	-	46/5±0/3
Lime	0/6±0/3	0/15±0/05	0/1±0/3	55±0/4	0/5±0/3	-	-	43/5±0/3
Lime Fines	1/3±0/5	0/4±0/1	0/2±0/05	54/3±0/5	0/3±0/05	-	-	43±0/5
Feldspar	73±1	12±1	0/8±0/1	2/5±0/2	0/9±0/2	3±0/2	3/7±0/3	3/3±0/3

Silica Sand Grain Size

Micron	106>	106<	150<	250<	600<	1000<
Silica Aggregation	9	13/8	50/5	26/2	0/4	0/05

Dolomite and Lime Powder Grain Size

Micron	106>	106<	500<	710<	2000<	2360<	2800<
Dolomite Aggregation	6/8	20	8/1	55/78	9/25	0/01	0
Lime Aggregation	7/26	15/9	8/6	5/7	11/4	0/03	0

Micronized Raw Materials Grain Size

Micron	53>	153<	75<	90<	106<	150<
Silica Fines	5/8	20	13/5	14/9	12/9	32/8
Dolomite Fines	5/9	29	11/5	17/3	25/4	10/9
Lime Fines	8/9	74/9	8/3	4/4	2	106



NBEC





NBEC Production Technology and Equipment - Advanced and First Class

We have the most advanced equipment introduced from famous international manufacturers. State of the art float plant is poised to produce high quality clear, heat absorbing tinted and on-line reflective glass products in thicknesses ranging from 1.9 mm - 19 mm. It is gearing up to cater to the varying needs of the regional and global market.

MANUFACTURING TECHNOLOGY





NBEC



AFGC's Float Glass is manufactured as per best industry standards and offers the lowest thickness tolerances, perfect flatness, smooth surface finish and excellent optical properties which make AFGC's Float Glass a perfect product to suit the particular needs of the end users as well as downstream processors.

Online Quality Control System

By understanding the importance of online and fully automated quality control, **NBEC** Float Glass Company equipped the production line with a fully automated online quality control.

Offline Quality Assurance Department

Quality Assurance Department of **NBEC** Float Glass Company is responsible for assuring the quality of products right from raw materials to finished product. AFGC ensures a very significant quality control on all its products through well-equipped chemical laboratory and physic laboratory. The quality policy covers all process and business practices employed to deliver world-class products & services.



QUALITY CONTROL





NBEC

All AFGC products are designed to meet the global quality standards for Architectural and Automotive applications through all secondary processes like spray and sputtering coating, bending and laminating, heat treatment etc. as specified for the end application.

Main Products:
Architectural Glass
Automotive Glass
Mirror Glass

Clear Float Glass

Clear Float Glass is made of molten glass which flows through furnace to tin bath and to the lehr. The main features are smooth and flat surface, high transmission and free from any kind of optical distortion. The product range has been designed to meet the global quality standards for architectural and automotive glazing applications and all other secondary processes like heat treatment, bending, laminating and coating.

Dimensions:

Thickness: 1.9 mm – 19 mm	Size:
Super Jumbo Size, Extra(EJS):	(7200 x 4880)mm, (4880 x 4000) mm, (4880 x 3660) mm
Standard Jumbo Size (SJS):	(6000 x 3210) mm
Extra LES (ELES):	(4880 x 4000) mm, (4880 x 3660) mm
LES:	(3660 x 2440) mm, (3660 x 2250) mm, (3660 x 2140) mm
Medium Size (1/2 LES):	(2440 x 3660) mm, (2440 x 3210) mm,(2440 x 3050) mm (2440 x 2140) mm, (2440 x 1830) mm, (2440 x 1220) mm (3210 x 2600) mm, (3210 x 2500) mm, (3210 x 2440) mm (3210 x 2250) mm,(3210 x 2200) mm, (3210 x 2140) mm (3210 x 2000) mm, (3210 x 1800) mm, (2250 x 2140) mm, (2250 x 1800) mm, (2250 x 1670) mm (2250 x 1605) mm (2140 x 3210) mm, (2140 x 3050) mm, (2140 x 2440) mm (2140 x 2250) mm,(2140 x 1830) mm,(2140 x 1670) mm (2140 x 1605) mm, (2140 x 1525) mm,(2140 x 1220) mm
Small Size(1/3 LES):	(1670 x 2500) mm,(1670 x 2250) mm,(1670 x 2140) mm (1605 x 2250) mm, (1605x2200) mm,(1605 x 2140) mm (1605 x 2000) mm, (1605 x 1800) mm, (1605 x 1250) mm (1605 x 1220) mm, (1605 x 1125) mm, (1605 x 1100) mm (1605 x 1070) mm, (1605 x 1000) mm, (1605 x 900) mm (1220 x 1830) mm, (1220 x 1605) mm, (1220 x 1525) mm
Packing Type:	Bulk, Wooden Box, Steel Racks (L & A)



Quality Standards for Architectural Glass

Quality Description		Thickness - mm									
		2	3	4	5	6	8	10	12	15	19
Thickness Tolerance	Maximum	-0.2/+0.2	-0.2/+0.1	-0.2/+0.1	-0.2/+0.1	-0.2/+0.1	-0.3/+0.2	-0.3/+0.2	-0.3/+0.2	-0.4/+0.3	-0.4/+0.3
thickness Gradient	Maximum mm/m	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Size Tolerance - mm	Maximum for JS & LES	± 3	± 3	± 3	± 3	± 3	± 4	± 4	± 4	± 6	± 6
Flatness - mm/m	Maximum Cross Bow	2	2	2	2	2	2	2	2	2	2
Bowl & Dish - mm/m	Maximum	2	2	2	2	2	2	2	2	2	2
Edge Defect (Max. Size - mm)	Flake, Shell	4	4	4	4	4	4	4	4	4	4
	Flare, Bevel	4	4	4	4	4	6	6	6	6	6
	Corner defect	4	4	4	4	4	6	6	6	10	12
Optical Distortion	Zebra Angle	40°	43°	43°	43°	43°	45°	45°	45°	45°	45°
Residual Stress - Mpa	Maximum	2	5	7	8	11	12	15	18	23	26
Squareness	Diagonal Difference	Half of Diagonal Difference = 0.2% of Diagonal length, Max. 10 mm for Jumbo Size, 4mm for Cut Size									
Over score	Cut Drag	Not Allowed									
Surface Quality		Glass particles, water, oil and dirt on the surface of the glass that may cause scratch and other problems during handling and processing is not allowed.									
Linear Surface Flaws	Scratch & Scuff, Roller Mark Tin Lines, Top Specks etc.	Visible Flaws Viewed at One Meter Under Normal Room Light is not Allowed. Maximum Total Length of Individual Visible Flaws should not be more than 300 mm / square meter under Normal Fluorescent Light Inspection at One Meter Distance.									
Point Defects - number/m ²	Defect Size ≤ 0.25 mm	Allowed									
	0.25 mm Defect Size ≤ 0.5mm	Allowed									
	0.5 mm Defect Size ≤ 0.75 mm	Allowed									
	0.75 mm Defect Size ≤ 1.0 mm	Five Defects / Square Meter. Distance between adjacent point defects should be more than 300 mm.									
	1.0 mm Defect Size ≤ 1.5 mm	Four Defects / Square Meter. Distance between adjacent point defects should be more than 300 mm.									
	1.5 mm Defect Size ≤ 2 mm	0.50 Defects / Square Meter. Distance between adjacent point defects should be more than 500 mm.									
	Defect Size ≥ 2 mm	Not Allowed									

Optical Properties of Clear Float Glass

Thickness	UV	Visible		Direct Solar Energy		
	Trans %	Trans %	Ref %	Trans %	Ref %	Abs %
2	73	73	73	73	73	73
3	72	72	72	72	72	72
4	62	62	62	62	62	62
5	66	66	66	66	66	66
6	59	59	59	59	59	59
8	58	58	58	58	58	58
10	50	50	50	50	50	50
12	47	47	47	47	47	47
15	47	47	47	47	47	47
19	44	44	44	44	44	44

Quality Standards for Automotive Glass (Tempered & Laminated)

Quality Description		Thickness - mm									
		1.9	2	2.2	2.3	2.5	3	3.2	3.3	3.5	4 & 5
Thickness Tolerance	Maximum	± 0.05	± 0.05	± 0.05	± 0.05	± 0.075	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1
Thickness Gradient	Maximum mm/m	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Size Tolerance - mm	Maximum for LES	± 2	± 2	± 2	± 2	± 2	± 3	± 3	± 3	± 3	± 3
Flatness - mm/m	Maximum Cross Bow	1	1	1	1	1	2	2	2	2	2
Bowl & Dish - mm/m	Maximum	1	1	1	1	1	1	1	1	1	1
Edge Defect (Max. Size - mm)	Flake, Shell	2.5	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0
	Flare, Bevel	2.5	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0
	Corner defect	2.5	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0
Optical Distortion	Zebra Angle	55°	55°	55°	55°	55°	53°	53°	53°	53°	53°
Maximum Residual Stress (Mpa)	Tensile	2	2	2	2	2	2	2	2	2	2
	Compressive	6	6	6	6	6	6	6	6	6	6
Squareness	Diagonal Difference	Half of Diagonal Difference = 0.2% of Diagonal length, Max. 10 mm for Jumbo Size, 4mm for Cut Size									
Over score	Cut Drag	Not Allowed									
Surface Quality	Glass particles, water & etc.	Glass particles, water, oil and dirt on the surface of the glass that may cause scratch and other problems during handling and processing is not allowed.									
Linear Surface Flaws	Line, Scratch & Scuff, Roller Mark, Tin Lines, Top Specks	Visible Flaws Viewed at One Meter Under Normal Fluorescent Light Inspection is Not Allowed.									
Point Defects - number/m ²	Defect Size ≤ 0.25 mm	Allowed									
	0.25 mm Defect Size ≤ 0.5mm	2.0 Defects /Square Meter. Distance between adjacent point defects should be more than 500 mm.									
	0.5 mm Defect Size ≤ 0.75 mm	0.50 Defects /Square Meter. Distance between adjacent point defects should be more than 500 mm.									
	0.75 mm Defect Size ≤ 1.0 mm	Not Allowed									
	1.0 mm Defect Size ≤ 1.5 mm	Not Allowed									
	1.5 mm Defect Size ≤ 2 mm	Not Allowed									
	Defect Size ≥ 2 mm	Not Allowed									





Productions:

NBEC Glass Manufacturing Group Co, which is located in the central province of Yazd, is known as the biggest glass production company in the Middle East. The factory has taken a big step in this industry, by using the most modern machines in the world and expert and professionals team.

NBEC Glass Corporation as a paramount brand of producing special building glass is honored to produce super Jumbo Glass for tempered, laminated and doubles glass for interior decoration and Facade design for architects in Iran and Asia.



PRODUCTS





NBEC

NBEC Architectural Glass Industry

NBEC Float Glass Company is proud to build the largest collection of glass processing for the production of architectural glass; which is the major step to supply architects needs of the country.

This Complex includes the production of several units such as, Jumbo laminated glass, Jumbo Tempered glass Mirror glass, Decorative glass, Satina glass, which is development landmark of changes in external and domestic architecture.



Offline Reflective Glass

In this factory reflective glass is made by Sputtering Deposition method. In this method, a variety of float glasses with a perfect vacuum condition, are covered by several metals such as silver, nickel, chromium copper, aluminum, or ceramic and metallic compounds.

Thickness: 3 mm – 12 mm

Maximum Size: 2240 x 3660 mm

Desired dimensions can be cut according to the customer's request.

Packing Type:

Packing type of these glasses is the same as other types of coated glasses like Mirror. For exporting these kinds of glasses, we set paper between them for non-adherence, otherwise use Separator powder. After covering them completely by nylon for avoiding water penetration, put them into wooden boxes and close them tightly with Strap Metal.

Online Reflective Glass

Online Reflective Glass is made by applying transparent metal oxide film on clear or tinted float glass surface in the tin bath by CVD technology. Online coating is a hard type coating bonds tightly on the surface of the glass and can withstand different kind of heat treatments such as strengthening, tempering and bending. Reflective float glass is a high performance architectural glass. The main feature is excellent energy saving and shading properties. The product color range has been designed to meet the building's exterior appearance for architectural glazing applications and related secondary processes.

Thickness: 1.9 mm ~ 12 mm

Maximum Size: 6000 x 4000 mm

Packing Type: Bulk, Wooden Box Steel Racks (L & A)





Solar Reflective Glass

Solar reflective Glass is made by applying transparent metallic layer on clear or tinted float glass surface by vacuum sputtering technology. The main feature is excellent reducing of solar heat gain by reflecting and absorbing solar energy. The product color range has been designed to meet the building's exterior appearance for architectural glazing applications and related secondary processes.

Thickness: 3 mm ~ 10 mm

Maximum Size: 3660 x 2440 mm

Packing Type: Bulk, Wooden Box, Steel Racks (L & A)



Low Emissivity Glass (Low-E Glass)

Low-E glass is produced by vacuum sputtering technology. Emissivity measures the material's ability to radiate energy. As silver is the material with the lowest emissivity, one, two or three transparent layers of silver are applied on the surface of the glass for reducing the glass emissivity. Combination of silver coating and several layers of optical coating can further improve visible light transmittance and reduce infrared transmission and solar heat gain. Clear float glass has an emissivity of approximately 0.85 that means more than 90% of absorbed heat is emitted from the surface. Applying low emissivity coating on the surface of the glass reduces the surface emissivity to less than 0.1. As Low-E coatings reflect long-wave IR, it reduces heat gain or loss in a building by redirecting the heat energy, so it ensures warmth in the winter and coolness in the summer.

Thickness: 4 mm ~ 10 mm

Maximum Size: 6000 x 2440 mm

Packing Type: Bulk, Wooden Box, Steel Racks (L & A)

Mirror

Silver mirror is produced through multiple coating of glass by a silver layer, copper layer and two layer of water proof paint on the back of qualified float glass. Copper-free silver mirror and aluminum mirror is available in case of customer request. The main features are clear and exact image, good resistance of back paint to acid and moisture and excellent durability. The product color range has been designed to meet architectural, decoration, furniture and automotive rear view applications. Available tints are bronze, blue, gray and green.

Thickness: 2 mm ~ 8 mm

Maximum Size: 3600 x 2400 mm

Packing Type: Bulk, Wooden Box, Steel Racks (L & A)



Aluminum mirror

Aluminum mirror is created by coating a layer of aluminum in Sputtering Deposition method under vacuum on the surface of glass and two water proof layers on the back of high quality float glass. The main features of aluminum mirror is high durability and affordable of mirror and showing a good image. These kinds of mirrors are ideal for structural purposes.

Thickness: 2mm ~ 8 mm

Maximum Size: 3600 x 2400 mm

Packing Type: Bulk, Wooden Box, Steel Racks (A & L)





Decorative Glass

Acid etched clear and tinted float glass with smooth finish. It is a cost effective replacement for sandblasted or ground glass. Satin finish (80-85% light transmission), matte finish (40-45% light transmission), acid etched pattern glass (zebra, ray, chinchilla, frost, flash, ribbed, cross reed, etc.), partially mirror finish (with silvered pattern) all are available from architecturally designed for architects. Perfect for tempering and fabrication for commercial, kitchen cabinets, furniture, doors, partitions and shower doors applications. The extra smooth finish is consistent throughout the sheet and is free from fingerprints, cutting oils, or cerium oxide. Satin etched with excellent diffusion and acid etched on both sides opening up new design possibilities for architect.

Thickness: 4 mm~ 10 mm

Maximum Size: 6000 x 2440 mm

Packing Type: Bulk, Wooden Box,
Steel Racks (L & A)

The advantages of Satina and Decorative glasses toward wooded glasses:

Separate production line ,non- pause float production line. Various designs of many templates.

Variety of production regards to the replaceable templates. Transparency and greater ease of cleaning by shallow designs made on glass.

Printed Decorative glass

Printed various traditional or modern designs on glass is a new field of producing decorative glasses, it is a new feature of design to create beautiful space and façade of buildings by wide range of print colors, Heat and light facilities and UV.

This causes to increase the competition between tile and glass for interior design, in the future.

Satina Glass:

The manufacturing process of Satina glass is the particular combination of HF acid, which removing parts of the surface of the glass, thus the glass surface changes into opaque (matt).

Thickness: 3 mm -19 mm

Maximum Size: 3700 x 2600 mm

Minimum Size: 1000 x 1000 mm

Packing Type: There is no need to use Separator powder for this kind of packing. After pulling the nylon around the entire jams, it will be placed into a wooden box.

Lacquered Decorative glass

By Applying paint on the colored or clear float glasses, Variety of architectural materials shows greatly, especially for interior design. These kinds of glasses divided into two main color groups, one of them is Organic and the other one is ceramic paints that can applied in various conditions.





Laminated

Laminated glass is a safety glass made from two pieces of float glass with a flexible plastic interlayer or PVB. The glass and interlayer are bonded together by heat and pressure. The main features of laminated glass are safety, sound reduction, UV elimination and shielding and glare control. Laminating prevent the glass from integrating if broken and eliminates almost totally all UV radiation to pass through, thereby indoor furniture like carpet and decoration from fading. Shielding control of laminated glass weakens sunlight radiation and reduce annoying glare that provides nearly reflection free viewing.

Thickness of substrate: 3 mm ~ 19 mm

Maximum thickness of laminated glass: 60 mm

Maximum Size: 3210 x 6000 mm

Interlayer: PVB, EVA, SGP

Packing Type: Bulk, Wooden Box
Steel Racks (L & A)



Insulating Glass Unit (IGU)

Insulated Glass Unit comprises two or more panels of glass separated by a spacer that contains a desiccant which eliminates moisture in the air space. The sides are hermetically sealed with high-strength and double barrier sealant. The combination of two glass panels and trapped gas in between makes IGU an excellent energy efficient glazing method. Clear float glass, Low-E glass, reflective glass, laminated glass, tempered glass or heat-strengthened and curved glass can be used to manufacture the unit according to architectural or energy saving demands. The heat insulating effect could be improved by using Low-E glass to form IGU or filling the cavity by special gases like Argon rather than air.

Thickness of panels: 3 mm ~ 19 mm

Thickness of aluminum spacer: 6, 9, 12, 16 mm

Maximum Size: 2440 x 6000 mm

Packing Type: Bulk, Wooden Box, Steel Racks (L & A)

Tempered and Heat Strengthened Glass

Tempered and Heat Strengthened Glass is produced by heating the float glass to approximately 700 °C and cooling its surface rapidly. Rapid cooling creates compressive stress on the surface of the glass; therefore it is more resistant to thermal shock, bending and withstands higher wind loads. In heat strengthening the glass is quenched at a slower rate that result less compressive tension than that of tempered glass. The breakage pattern of heat strengthened glass is linear and the fragments are more likely to remain in place. The main features of tempered and heat strengthened glass are harmless fragments, high mechanical strength and thermal stability.

Thickness: of panels: 3 mm ~ 19 mm

Maximum Size: 2440 x 6000 mm

Packing Type: Bulk, Wooden Box, Steel Racks (L & A)



Packing, Transport, Storage and Loading

NBEC has the endeavor to provide consistently qualified products accompanied by the best quality of packing, timely delivery and after sale services. For achieving this goal, NBEC has bought the most equipped machineries for safe and secure packing, storage, loading and transporting.

The company takes the advantages of special inloaders for transportation Super Jumbo, Jambo and LES sizes up to end-users warehouse of domestic or destination ports of foreign customers.



- Up to 1250 Sqm loading possibility (4mm basis)
- Unload by 12T Crane whole 4 packages of Rack
or 3Ton Forklift(one package)



ISATIS Metal Racks





Serving World Wide Markets



EXPORT



NBEC is capable of exporting its products to various countries based on international standards in firm packing and in wooden boxes.



Carrying ISATIS Metal Racks by train



Carrying wooden box by ship for export



NBEF
Float Glass

Next Bridge

Float Glass
Industry Corporation

