

A SOLITAIRE is an object of beauty, wealth, elegance and above all, a piece of royal taste. Garnet is a true solitaire in this regard. In plywood industry, Garnet reflects beauty, dynamism, strength and

durability par excellence.



As a brand, Garnet is a phenomenon in the sense of making life more meaningful. It has earned this status by delivering quality and excellence. In the plywood segment, Garnet stands for guaranteed standard. The core beliefs – transparency, innovation and economical range, make Garnet, the super star of plywood industry. The product range comprises of-

- Moisture Resistant Plywood
   Boiling Water Resistant Plywood
- Boiling Water Proof Marine Plywood
   Decorative Plywood
- · Teak plywood & Block Board · Gurjan plywood · Flush Door
- Flexible plywood etc.



Garnet is committed to enrich quality of life of every citizen by fulfilling his diverse wood needs. Garnet procures best woods from the interiors of the vast forestland and adjoining areas.

Garnet employs state-of-the-art technology and highly advanced machines in most modern manufacturing set-up. The resultant products are smart, classy and innovative and benchmarks of quality.

Garnet is India's first manufacturer of 7 layer block board.

Moreover, Garnet is India's first company to manufacture all its products using double hot pressed technology and triple hot pressed technology. With the foundation of its rich expertise and many firsts in the field of plywood world, Garnet is

carving a majestic future.





MOISTURE RESISTANT PLYWOOD

Appreciate the Simplicity



### **Moisture Resistant (MR) Plywood**

Solitaire is priceless even if it looks simple. Actually nature enriches them in the warm fold with the beauty of nostalgic times. Like this, Garnet makes plywood from superior quality handpicked hard wood timber, searched with the consent of mother earth and forest.

Its simplicity speaks.

Sliced and cut into veneers with the most modern and advanced machinery, Garnet Plywood is a marvel. Its bonding is with the highly integrated UF Resin element which makes it immortal in all aspects. Compression with HOT hydraulic presses under high pressure and temperature attributes the desired flexibility with power to give supreme creation of its kind.









TECHNICAL SPECIFICATIONS (IS:303)				
S.No.	Test	ISI Requirement Observed V		
1	Moisture Content	5% - 15%	8%	
2	Dimension	Length +6mm, Width +3mm With in limit Thickness ->6mm +-5%, <6mm +-10%		
3	Sp. Gravity		>7	
4	Resistance to Water	3 cycle 3Hrs. At 60+-2C	No de-lamination	
5	Mycological Test	3 weak	No de-lamination	
6	Adhesion of plies	Minimum Pass, Excellent, Poor	Excellent	
7 a.	Static Bending Strength MOE- Parallel Average Individual	Not Less Than 4000 N/mm2 Not Less Than 3600 N/mm2	4500 N/mm2 4100 N/mm2	
b. c.	MOE-Perpendicular Average Individual MOR-Parallel Average	Not Less Than 2000 N/mm2 Not Less Than 1800 N/mm2 Not Less Than 30 N/mm2	2500 N/mm2 2100 N/mm2 35 N/mm2	
d.	Individual MOR-Perpendicular Average Individual	Not Less Than 27 N/mm2 Not Less Than 15 N/mm2 Not Less Than 13 N/mm2	31 N/mm 19 N/mm2 15 N/mm2	

**Standard Sizes (feet):** 8x4, 8x3, 8x2½, 7x4, 7x3, 7x2½ 6x4, 6x3, 6x2½, 5x4, 5x3, 5x2½ **Standard Thicknesses (mm):** 3, 4, 6, 9, 12, 16, 19, 25



BOILING WATER RESISTANT PLYWOOD

Love that Warmth



## **Boiling Water Resistant (BWR) Plywood**

Every Solitaire in its heart carries the warmth of a lifetime. It is the only humble way of showing genuine eligibility to become a tested friend. Garnet BWR Grade Plywood is a legend in this respect. It is brave enough to withstand boiling water up to 72 hours.

BWR acquired this characteristic by Garnet's in-house processing facility of its PF Resin. The ingredients in the resin help to resist termites and fungus and are immune against bio-degradation.

This creates an intrinsic worth in Garnet Plywood.

Ultimately, it turns out to be the primary and most vital choice for exterior woodwork.





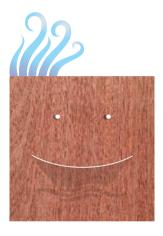




TECHNICAL SPECIFICATIONS (IS:303)				
S.No.	Test	ISI Requirement	Observed Value	
1	Moisture Content	5% - 15%	8%	
2	Dimension	Length +6mm, Width +3mm Thickness ->6mm +-5%, <6mm +-10%	With in limit	
3	Sp. Gravity		>7	
4	Resistance to Water	3 cycle 3Hrs. At 60+-2C	No de-lamination	
5	Mycological Test	3 weak	No de-lamination	
6	Adhesion of plies	Minimum Pass, Excellent, Poor	Excellent	
7 a.	Static Bending Strength MOE- Parallel Average Individual	Not Less Than 5000 N/mm2 Not Less Than 4500 N/mm2	5500 N/mm2 4900 N/mm2	
b. c.	MOE-Perpendicular Average Individual MOR-Parallel	Not Less Than 2500 N/mm2 Not Less Than 2200 N/mm2	2800 N/mm2 2400 N/mm2	
d.	Average Individual MOR-Perpendicular	Not Less Than 40 N/mm2 Not Less Than 36 N/mm2	48 N/mm2 40 N/mm	
	Average Individual	Not Less Than 20 N/mm2 Not Less Than 18 N/mm2	25 N/mm2 20 N/mm2	

**Available Sizes (feet):** 8x4, 8x3, 8x2½, 7x4, 7x3, 7x2½ 6x4, 6x3, 6x2½, 5x4, 5x3, 5x2½

**Available Thicknesses (mm):** 3, 4, 6, 9, 12, 16, 19, 25



MARINE PLYWOOD

Endurance is the Force



## Marine (BWP) Plywood

Enchantment of a Solitaire increases many fold when it establishes the quality of the endurance. It is clearly visible in facing diverse and acute climatic conditions – hot, cold, dry and wet and so on. Marine Plywood from Garnet is perfect on this scale. It's a very versatile and strong product. It is manufactured using the highest quality veneers and crafted to give high quality wood in which defects have been graded out.

The elimination of core gaps while cutting makes the wood better than any solid wood with ability to withstand alternate drying – wetting and changes in temperature. Bonding with highly integrated resin gives immeasurable firmness to this plywood. The special permanent preservative resin treatment by Vacuum Pressure Impregnation done with a minimum retention of 12 kg/m3, as specified by ISI, makes Marine Plywood invincible against insects and deadly aquatic organisms.

The inner core vitality and extraordinary strength makes it effective for construction, repair and maintenance of marine and river vessels, railway coaches, bus, trucks, kitchen accessories, toilets and sign boards etc.









TECHNICAL SPECIFICATIONS (IS:710)				
S.No.	Test	ISI Requirement	Observed Value	
1	Moisture Content	5% - 15%	8%	
2	Dimension	Length +6mm, Width +2mm Thickness ->6mm +-5%, <6mm +-10%	With in limit	
3 a. b.	Glue Adhesion in Dry State Glue Shear Stength Min. Average Min. Individual Adhesion of Plies (knife test)	Shall be not less than 1350N Shall be not less than 1100N Minimum Pass, Excellent, Poor	1420N 1170N Excellent	
4 a. b.	Water Resistance Test Glue Shear Stength Min. Average Min. Individual Adhesion of Plies (knife test)	72 Hrs. Boiling at 100C  Shall be not less than 1000N Shall be not less than 800N Minimum Pass, Excellent, Poor	No Delamination 1120N 1010N Excellent	
5 a. b. c.	Tensile Strenght Parallel Perpendicular Sum of Tensile Strength	Shall be not lessthan 42.0 N/mm2 Shall be not lessthan 25.0 N/mm2 Shall be not lessthan84.50 N/mm2	54.12 N/mm2 32.21 N/mm2 86.33 N/mm2	
6 a. b. c.	Static Bending Strength MOE- Parallel Average Individual MOE-Perpendicular Average Individual MOR-Parallel Average Individual MOR-Perpendicular Average Individual MOR-Perpendicular Average Individual	Not Less Than 7500 N/mm2 Not Less Than 6700 N/mm2 Not Less Than 4000 N/mm2 Not Less Than 3600 N/mm2 Not Less Than 50 N/mm2 Not Less Than 45 N/mm2 Not Less Than 30 N/mm2 Not Less Than 30 N/mm2 Not Less Than 27 N/mm2	8500 N/mm2 7800 N/mm2 4600 N/mm2 4100 N/mm2 58 N/mm2 52 N/mm2 36 N/mm2 32 N/mm2	

**Available Sizes (feet):** 8x4, 8x3, 8x2½, 7x4, 7x3, 7x2½

**Available Thicknesses (mm):** 3, 4, 6, 9, 12, 16, 19, 25





**BLOCK BOARD [7 LAYER]** 

Wonders of Strength



## 7 Layer Block Board (MR / BWP)

Every Solitaire is composed of power and timelessness. But a few are Hercules in respect of their towering power. Garnet has introduced a macho Block Board with unmatched strength and great durability for powerful needs. Garnet has provided India this unique 7 layer Block Board, and because of its superior balance construction and incredible strength it is unmatched to any other board in the whole nation. Seasoned to meet both interior and exterior needs, its flexibility and toughness is unparalleled.

Treated with both PF & UF Resins, the boards are powerful enough to provide resistance to termite and other wood destroying elements.















	TECHNICAL SPECIFICATIONS (IS:1659)					
S.No.	Test	ISI Requirement	O.k	served Value		
1 a. b. c.	Manufacture Width of Beat Width of Rail (Frame) Moisture(Beats&Rail)	Not more than 30 mm May be upto 45 mm Between 8 to 12 %		28mm 46mm 8.20%		
2	Dimension	Length +6mm, Width +3mm Thickness -> +-5%, Squareness & Edge Straightness - 2mm per 1000mm,		With in limit		
3	Mycological Test	3 Weak		No de-lamination		
4	Resistance to Water	BWP-6 Cycle 8Hrs. At 100C		No de-lamination		
5	Adhesion of Plies	Minimum Pass, Excellent, Poor		Excellent		
6 a.	Dimensional changes caused by Humidity At 90+-5 % R.H & 27+-2C Temp.	Difference in Length = +- 1mr		MR	BWP	
b. c.	At 45+-5 % R.H & 27+-2C Temp.  Local Planeness	Difference in Thickness = +- 1mm Difference in Length = +- 1mm Difference in Thickness = +- 1mm Shall be d/l <1/50		0.39mm 0.22mm 0.0011mm	0.35mm 0.20mm 0.0015mm	
7	Modulus of Elasticity (MOE) Average Individual	MR Not Less Than 4000 N/mm2 Not Less Than 3400 N/mm2	BWP  Not Less Than 5000 N/mm2  Not Less Than 4200 N/mm2	MR 4800 N/mm2 4100 N/mm2	BWP 5800 N/mm2 5100 N/mm2	
8	Modulus of Rupture (MOR) Average Individual	MR Not Less Than 40 N/mm2 Not Less Than 34 N/mm2	BWP  Not Less Than 50 N/mm2  Not Less Than 42 N/mm2	MR 46 N/mm2 42 N/mm2	BWP 56 N/mm2 52 N/mm2	



#### NATURAL DECORATIVE VENEERS

Nature's Angel



#### **Natural Decorative Veneers**

Garnet is the Solitaire of the wood. A Solitaire is the best of both the worlds. It is the fine palette of beauty and elegance as well a treasured entity. Natural Decorative Plywood from Garnet is the epitome of such aesthetic beauty. Blend of exquisite textures and style, it is made from exclusive timber of superior quality.

The perfect grains give special finish to plywood for furniture and wall coverings. Made from Double and Triple Hot Press Technology and calibrated for equal thickness at all points, Natural Decorative Plywood has exceptional finish. Resistant to moisture, temperature and micro-organisms, it is a unique fusion of innovation, creativity and strength.

A unique expression of lively colours and designs, Garnet Natural Decorative Plywood is the finest choice to decorate your dreams.









TECHNICAL SPECIFICATIONS (IS:1328)				
S.No.	Test	ISI Requirement	Observed Value	
1	Open Splits	Not more than 150mm length and 0.5mm in width rectified with veneer insert bonded with synthetic resin	No open splits	
2	Torn grain, dead knots,dote, discolouration and sapwood	Free from such defect.	Free from such defect.	
3	Moisture Content	5% - 15%	8%	
4	Dimension	Length +6mm, Width +3mm Thickness ->6mm +-5%, <6mm +-10%	With in limit	
5	Wate Resistance Test	No Delamination & Blister Formation	No Dilamination No Blister formation	
6	Adhesion of Plies (knife test)	Minimum Pass, Excellent, Poor	Excellent	

Available Sizes (feet): As per requirement

**Grades**: MR

Available Thicknesses (mm):

As per requirement

SMOKED V E N E E R S

## ROUGH CUT

for full range of Rough Cut veneer please ask for natural veneer album

# FIGURED

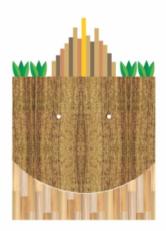
for full range of Figured veneer please ask for natural veneer album



for full range of Dyed veneer please ask for natural veneer album







TEAK PLY & TEAK BOARD (7Layer)

Adore the Ageless Beauty

TEAK V E N E E R S

for full range of Teak veneer please ask for natural veneer album

## Teak Ply & 7 Layer Teak Board (MR / BWR & BWP)

A Solitaire oozes strength. Garnet boasts that. Toughness describes its effort in becoming invincible. Garnet offers Teak Plywood and Teak Block Boards to enhance your desire for beauty. Teak being the most durable, hardest timber with amazing toughness is the first choice for mature minds.

Its natural golden hue also radiates a royal look giving enormous regal charm to the woodwork. Made from high quality teak veneers with advanced technology, Garnet Teak veneer reflects impeccable strength. It is resistant to moisture, temperature changes and micro-organisms making it a gift of lifetime.

So, it is aptly used to play and highlight the beauty of your décor and other strong needs in the interior and even for outdoor requirements such as benches and stalls. The excellent craftsmanship of Garnet combined with the personality of Teak resulted in wonderful show to please the senses.















TECHNICAL SPECIFICATIONS (IS:1328)				
S.No.	Test	ISI Requirement	Observed Value	
1	Open Splits	Not more than 150mm length and 0.5mm in width rectified with veneer insert bonded with synthetic resin	No open splits	
2	Torn grain, dead knots,dote, discolouration and sapwood	Free from such defect.	Free from such defect.	
3	Moisture Content	5% - 15%	8%	
4	Dimension	Length +6mm, Width +3mm Thickness ->6mm +-5%, <6mm +-10%	With in limit	
5	Wate Resistance Test	No Delamination & Blister Formation	No Dilamination No Blister formation	
6	Adhesion of Plies (knife test)	Minimum Pass, Excellent, Poor	Excellent	

**Available Sizes (feet):** 8x4, 8x3, 8x2½, 7x4, 7x3, 7x2½ 6x4, 6x3, 6x2½, 5x4, 5x3, 5x2½

Grades: MR, BWR & BWP

Available Thicknesses (mm):

3, 4, 6, 9, 12, 19, 25



#### **RECON**STITUTED DECORATIVE VENEERS

Fabrics of Emotions



#### Reconstituted Decorative Veneers

Solitaire is pure as soul. Only a blessed touch can reveal its inner beauty. Garnet Recon decorative Plywood reflects the soul of the solitaire. The exterior is only a reflection of heart of human craftsmanship.

Made from handpicked veneers of quality and strength, Garnet recon has unique designs reconstituted by human emotions with nature. Designed to display more than 100 versions, they pamper distinct tastes. Sliced, dyed and pressed using latest technology, Garnet Recon Decorative Plywood is principal preference of millions.









TECHNICAL SPECIFICATIONS (IS:1328)				
S.No.	Test	ISI Requirement	Observed Value	
1	Open Splits	Not more than 150mm length and 0.5mm in width rectified with veneer insert bonded with synthetic resin	No open splits	
2	Torn grain, dead knots,dote, discolouration and sapwood	Free from such defect.	Free from such defect.	
3	Moisture Content	5% - 15%	8%	
4	Dimension	Length +6mm, Width +3mm Thickness ->6mm +-5%, <6mm +-10%	With in limit	
5	Wate Resistance Test	No Delamination & Blister Formation	No Dilamination No Blister formation	
6	Adhesion of Plies (knife test)	Minimum Pass, Excellent, Poor	Excellent	

Available Sizes (feet): As per requirement

**Grades**: MR

Available Thicknesses (mm):

As per requirement

# Group 'A'

Group 'B'

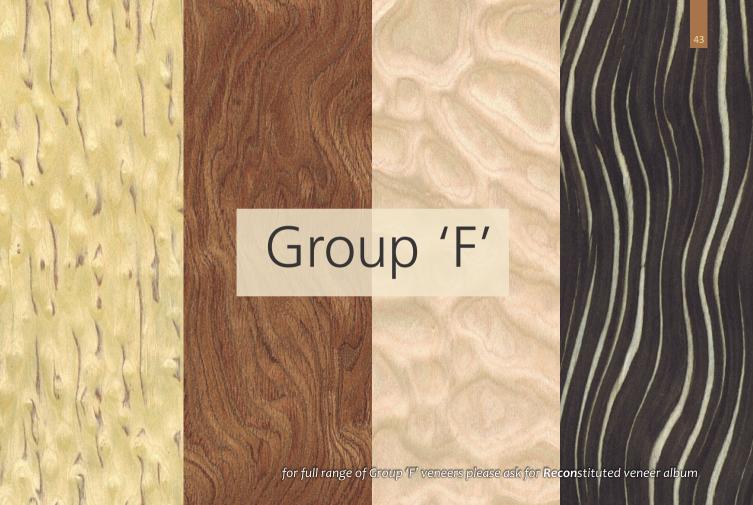
for full range of Group 'C' veneers please ask for Reconstituted veneer album

# Group 'C'

# Group 'D'

for full range of Group 'E' veneers please ask for Reconstituted veneer album







FLUSH DOOR (7 LAYER)

Into the Safe Heavens



#### 7 Layer Flush Door (BWP)

The core of Solitaire is unyielding as it is rock-hard. But its exterior is pleasing to melt one's heart. This quality of a true Solitaire transforms it into a Samurai – sharp and smooth. Styled in this way are Garnet Flush Doors – Strong as well as elegant.

Made by using high quality veneers with superior framing and paneling techniques, Garnet Flush Doors are a class apart. Ensuring security and great impression, they are perfect for all needs. Conforming to IS: 2202, they are available in a vast range of sizes and standard thicknesses.

Designed to match distinct tastes and imaginations, Garnet Flush Doors magnify the exquisiteness of interiors and other places where they are installed.









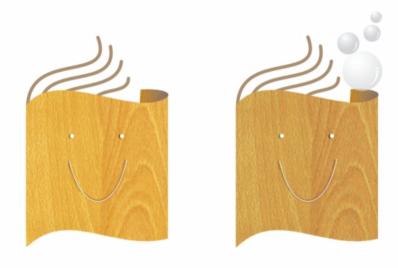






TECHNICAL SPECIFICATIONS (IS:2202;1999 BWP Part-1)				
S.No.	Test	Test ISI Requirement		
1	Construction	a. Width of Frame between 45 & 75mm b.Width of each strip of wood <- 30mm c. Moister content of strip <- 12% d. Core Strip Shall beof one Species only e. Stiles & Rails Shall be w/o any Joint f. Thickness of Core band between 1&3mm g. Thickness of Face Veneer between 0.5 & 1.5 mm	47mm 27mm 8.90% Safeda, Popular With in limit 1.9mm 0.5mm	
2	Dimension	Height +5mm, Width +5mm Thickness -+- 1mm,& Squareness-shall not more than 1mm, in 500mm	With in limit	
3	General Flatness Test	Twist, Cupping, Warping shall not be more than 6mm	0.58mm	
4	Local Planeness Test	Depth of deviation shall not be more than 0.5mm	0.46mm	
5	Impact Indentation Test	Depth of deviation shall not be more than 0.2mm	0.13mm	
6	Edge Loading Test	At Max.load-Deflection ofedge<5mm on removal of load-residual deflectio<0.5mm	1.23mm 0.08mm	
7	Shock Resistance Test	No visible damage in any part of the door after 25 blows	No Visible defects	
8	Buckling Test	Initial deflection < 50mm Residual deflection not more than 5mm after 15 minutes	35mm 1.5mm	
9	Slamming Test	No visible damage after Test	No Visible damage	
10	Misuse Test	No visible damage after Test	No deformation	
11	Varying Humidity Test	No visible warping, twisting, or De-lamination	No such defects observed	
12	End Immersion Test	Shall have no delamination at the end of 8 cycle	No de-lamination	
13	Flexyre Test	Deflection at the Max. load shall not than 1/30 of the length & 1/15 of Width Residual deflection shall not be more than 1/10 of Max deflection	with in limit wih in limit	
14	Knife Test	Min.Pass, Excellent,Poor	Excellent	
15	Glue Adhesion Test	No delamination has occurred in the glue line at 100C temp. till 4 Hrs. & Dry 24Hrs. At ambient temp	No de-lamination	
16	Screw Withdrawl Test	Load to withdrawl Screw to be more than 1000 N	1220N	

**Grades**: BWP



FLEXIBLE PLYWOOD

Mesmerising Magical



### Flexible Plywood (MR / BWR)

The aura of a Solitaire imparts magic touch to its holder. That touch, in turn, liberates the freedom, expression and character of the soul. Garnet Flexy is a matchless product offered to supplement the creative aspirations of furniture lovers. A promising product, especially for furniture makers, with magical abilities, it can mould and bend to take any shape with great ease. It does not clip, crack, peel or gets stained while bending, enabling craftsmen to pursue their innovative visions.

Available in MR / BWR grades as well as various sizes of sheets, it can be bent by hand. It does not require any special equipment to bend, fabricate or laminate, making easy to use and handle. A small radius up to 25 mm can be achieved, making it a wonder product, right and proper for all kinds of shapes. Garnet Flexy, furnishes it touch to creative freedom and expression of its lovers.





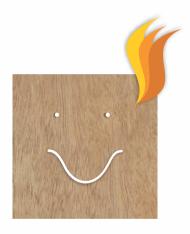




TECHNICAL SPECIFICATIONS (IS: 303)						
S.No.	Test	ISI Requirement		Observed Value		
1	Moisture Content	5% - 15% 8%				
2	Dimension	Length +6mm, Width +3mm Thickness ->6mm +-5%, <6mm +-10%		With in limit		
3	Sp. Gravity			>7		
4	Resistance to Water	3 cycle 3Hrs. At 60+-2C		No de-lamination		
5	Mycological Test	3 weak No de-lamination				
6	Adhesion of plies	Minimum Pass,	Excellent, Poor		Excellent	
7 a.	Static Bending Strength MOE- Parallel Average Individual	Not Less Than Not Less Than	MR 4000 N/mm2 3600 N/mm2	5000 N/mm2 4500 N/mm2	MR 4500 N/mm2 4100 N/mm2	5500 N/mm2 4900 N/mm2
b. c.	MOE-Perpendicular Average Individual MOR-Parallel	Not Less Than Not Less Than	2000 N/mm2 1800 N/mm2	2500 N/mm2 2200 N/mm2	2500 N/mm2 2100 N/mm2	2800 N/mm2 2400 N/mm2
d.	Average Individual MOR-Perpendicular Average Individual	Not Less Than Not Less Than Not Less Than Not Less Than	30 N/mm2 27 N/mm2 15 N/mm2 13 N/mm2	40 N/mm2 36 N/mm2 20 N/mm2 18 N/mm2	35 N/mm2 31 N/mm 19 N/mm2 15 N/mm2	48 N/mm2 40 N/mm2 25 N/mm2 20 N/mm2

 Available Sizes (feet): 8x4, 8x3, 8x2½, 7x4, 7x3, 7x2½
 Grades: MR / BWR
 Available Thicknesses (mm): 4, 6, 9, 12

 6x4, 6x3, 6x2½, 5x4, 5x3, 5x2½



FIRE RETARDANT PLYWOOD

Beating Heat with Smile



### Fire Retardant Plywood (BWP)

Solitaires possess a compact structure to fence against any evils. Be it the pressure of any kind, heat or fire or application of any other force. Garnet Fire Retardant Plywood is the latest entry in the diverse range of products from Garnet. Result of visionary research and development at Garnet, it offers extensive protection against fire. It is much safer than other products as it considerably diminishes the impact of fire.

The plywood is treated with superior quality resins capable of retarding fire. They diminish the rate at which fire spreads or invades the surface of plywood. Henceforth, in the face of mishap, the plywood maintains its basic constitution for a longer duration in contrast to other building materials. Garnet Fire Retardant Plywood has its applications in Kitchens, Aerodromes, Petrol Pumps, Multi-storey buildings and Laboratories.









TECHNICAL SPECIFICATIONS (IS:5509;2000 BWP)				
S.No.	Test	ISI Requirement	Observed Value	
1	Moisture Content	5% - 15%	8%	
2	Dimension	Length +6mm, Width +3mm Thickness ->6mm +-5%, <6mm +-10%	With in limit	
3 a. b.	Fire Retardant Test Flammability Test Flame Penertration Test Rate of Burning	Time taken for second ignition shall not be less than 30 minutes Time taken for Flame Penertration shall not be less 15 minutes for every 6mm thickness Time taken to lose weight from 30% to 70% shall not be less than 20 minutes	24 Minutes 22 Minutes 12 Minutes	
4	Adhesion Test	Minimum Pass, Excellent , poor	Excellent	
5	Wate Resistance Test	BWR - 3Cycles 8Hrs.at 100C	No Delamination	

Available Sizes (feet): All standard sizes

Available Thicknesses (mm): All standard thickness

### **Futuristic Wisdom**

To meet future concerns with the ever evolving eco-friendly wood solutions for the smart consumers, Garnet is consistently investing resources in research and development.

Unabashed with the Changing Values, Garnet is steadfast in innovating bright versions of products higher on the scale of strength and design.



