

# RUSSIAN BIRCH FILM FACE SHUTTERING PLYWOOD

Birchply™ Russian Birch Film Face Shuttering Plywood is ultimate in Plywood having excellent physical and mechanical properties. The rigid laminated surface not only prevents moisture absorption but also ensures excellent abrasion resistance in aggressive conditions and smooth finish to concrete formwork.

Birch Plywood has been designed to suit any and every application needs of construction industry where durability, versatility, high bending strength, rigidity, stability, accuracy and tolerance to humidity parameters of performance value are critical.





### KEY BENEFITS OF RUSSIAN BIRCH FILM FACE SHUTTERING PLYWOOD

- Fair finish concrete surface
- Highly wear resistant,
- Free from delamination risks,
- No need for secondary putty repairs of concreted surface
- Resistant to most aggressive environments, including chemicals
- Higher water resistance, boiling waterproof
- Durable and Hard surface
- Resistance to temperature variation: through a range of -40°C to +50°C (-40°F to +122°F), comes in a variety of thicknesses and sizes.



### WHAT DOES OUR PROMISE OF EFFICIENCY MEAN TO YOU

- Products that improve your cost, material and energy efficiency
- Reliable and timely deliveries
- Local knowledge, support and service
- Solutions for every application
- Proven and documented technical data and environmental statements

### **CERTIFICATIONS**

 Certified products are also available under the chain of custody programs on prior arrangement



### **PROPERTIES**

- Waterproof, dimensionally accurate & stable.
- · Strong and light
- Meets EUTR standards,
- Meets European El formaldehyde emission requirements (EN 120:1992) and also California ARB regulation P2



 100% natural whole piece or spliced Birch Veneers of 1.4mm thickness throughout the plywood without any gaps or open splits or joints.



### **BONDING**

 Phenolic resin crossbonded weather resistant gluing according to EN 314-2 class 3 exterior.

### **AVAILABILITY OPTIONS:**

Birchply™ Russian Birch Film face Shuttering Plywood is made in a range of thickness from 9mm, 12mm, 15mm, 18mm & 24mm

Film availability: 120 GSM/220 GSM

Sizes option: 1220mm x 2440mm & 1525mm x 3050mm



### TECHNICAL SPECIFICATION OF RUSSIAN BIRCH FILM FACE SHUTTERING PLYWOOD

| Thickness, mm       | 9, 12, 15, 18, 21, 24                |  |  |
|---------------------|--------------------------------------|--|--|
| Sizes option        | 1220mm x 2440mm & 1525mm x 3050mm    |  |  |
| Film availability   | 120 GSM/220 GSM (at option of buyer) |  |  |
| Surface type        | Smooth (F/F)                         |  |  |
| Water resistance    | Boiling Water Proof                  |  |  |
| Density, kg/m3      | 640-700                              |  |  |
| Moisture content, % | 5-14                                 |  |  |
|                     |                                      |  |  |

Produced under STO 00255177-002-2014 Film faced birch plywood.

### STRENGTH SPECIFICATIONS OF RUSSIAN BIRCH FILM FACE SHUTTERING PLYWOOD

| Dimension  |                                   | Value |
|--|-----------------------------------|-------|
| Ultimate static<br>bending strength, min<br>MPa  | along the grainof<br>face veneers | 60    |
|  | against the grainof face veneers  | 30    |
| Static bending<br>elasticity modulus, min<br>MPa | along the grain                   | 6000  |
|  | across the grain                  | 3000  |



### **TECHNICAL SPECIFICATION OF** RUSSIAN BIRCH FILM FACE SHUTTERING PLYWOOD

| Parameters                                   | Values  |
|--|---------|
| Density kg/cubic meter                       | 640-700 |
| Moisture Content %                           | 8-10    |
| Minimum Ultimate strength MPa                |         |
| Shear along the glue layer                   | 1.5     |
| Static bending along the grain (Outer layer) | 25      |
| Tension along the grain                      | 30      |
| Minimum elastic module, MPa                  | 7000    |

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## EFFECT OF HUMIDITY AND MOISTURE

- Wood veneer is a living material and is subject to moisture movement according to surrounding conditions, which affects the flatness of panels. It is important to condition the panels to reach a moisture content near to the equilibrium of their permanent environment.
- Like other wood-based panel products, Birch Plywood is also hygroscopic and its dimensions change in response to a change in humidity. A change of 1% in moisture content typically increases or decreases the length, width and thickness by 1% in dimensions and thickness. It is therefore desired that the edges are sealed with a suitable acrylic paint to prevent and/or control ingress of moisture and humidity and consequent swell in thickness and expansion in dimensions.
- The recommended stocking conditions are 20°C and a RH of air of about 60%.





### STORAGE CONDITIONS:

When first exposed to the prevailing weather conditions at Site and during the early uses of the boards, there is likely to be some localised swelling of the wood veneer caused by moisture pickup, which may leave impressions in the face of the concrete. To prevent this:

- Store the panels in dry conditions, flat on a level surface, off the ground and direct sunlight, preferably indoors or under the shed.
- Panels should be store horizontally on a firm base with enough bearers to prevent sagging.
- The stacks should be covered k to protect top and edges from moisture penetration as fluctuations in temperature and humidity may cause panels to distort.

### **PRESERVATIVES**

Birchply Plywood is made from natural Birch wood Veneers grown and harvested in Russia and is free from any toxic chemicals except resin. As is common knowledge, all wood products are susceptible to insects or termites and/or borers present in different climatic zones in the soil or buildings. It is recommended that the users are applying the coat of suitable chemicals or insecticides on all exposed surfaces of wood in addition to treatment of masonry foundations of the building where the Wood products are required to be used. Fipronil emulsified concentrate at about 3% is one such chemical and effective deterrent against insects and pests or termites in tropical climate zones. However, the application should be in accordance with manufacturers guidelines for effective results. Users own discretion in selection of appropriate chemical and its doses or frequency of such treatment is advised for satisfactory results in the light of experience gained over the period of time.



### REUSES OF RUSSIAN BIRCH FILM FACE SHUTTERING PLYWOOD

- Typical number of reuses is likely to be in the range of 15-20 times. However, this will vary according to many different factors including good site practice, the required concrete finish, the amount of care taken when compacting the concrete, handling and storage of panels, type and quality of release agent used on the panels before concreting.
- The number of times the plywood can be reused is only intended as an approximate guide. It does not imply any form of warranty. The actual number of reuses will depend on several factors other than the plywood.

### DISCLAIMER:

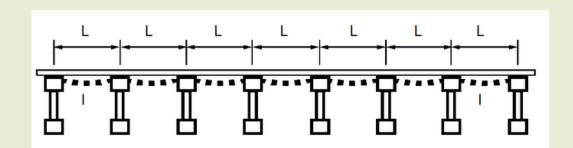
Eximcorp India Pvt Ltd, does not assume any responsibility or admits any liability whatsoever for the number of uses or re-uses or repetitions or damages to the sheets or concrete surface quality for reasons not attributable to manufacturing defects or for several other factors affecting the performance of the product. In the event of any occasional delamination in excess of the AQL (Acceptance Quality Level) of 3% established by the trade practices and also so declared by the seller hereby, the replacement of delaminated sheets or the surface area so observed shall me made expeditiously by the Seller or refund of value thereof as soon as possible without any further or other consequential or other losses.



### LOAD & DEFLECTION TABLE OF RUSSIAN BIRCH FILM FACE SHUTTERING PLYWOOD

Load Resistance q[Kg/m2] and corresponding defelection u[mm] VALUES OF birchply Film Faced Shuttering Plywood to be used in the design of concrete formworks

### **LOAD AND DEFLECTION**



|                     | Recommended Maximum Load in Kg/m2- Wet Condition |         |   |                          |  |  |
|---------------------|--|---------|---|--------------------------|--|--|
|                     | Face Grain Parallel to<br>Supports               |         | Face Grain Perpendicular<br>to Supports |                          |  |  |
|                     | Plywood Thickness - Allowable load in Kg/m2      |         |   | ess - Allowable<br>Kg/m2 |  |  |
| Supports<br>Spacing | 18mm   |         | 18mm                                    |                          |  |  |
| (mm)                | L/360  | L/270   | L/360                                   | L/270                    |  |  |
| 200                 | 8815.6   | 11894.1 | 6122                                    | 8248.9                   |  |  |
| 300                 | 2679.7   | 3533.3  | 1854.1                                  | 2448.8                   |  |  |
| 400                 | 1122.9   | 1497.2  | 772.8                                   | 984.6                    |  |  |
| 485                 | 647.9  | 864.1   | 444.3                                   | 594.7                    |  |  |
| 600                 | -  | 443.6   | -                                       | -                        |  |  |



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