

# ENERGY EFFICIENCY

## Product and Installation Specifications

### PART 1 - GENERAL

#### 1.1 Related Work

- .1 Related work to be determined by project architect or owner's representative.

#### 1.2 Scope of Work

- .1 The work of this section covers the supply and installation of rollshutters and/or habitat screens™ called for on the drawings and herein specified.
- .2 The Talius Authorized Dealer, or General Contractor, to provide all wood blocking and/or solid mounting surfaces required for a proper installation.
- .3 If required, the Talius Authorized Dealer, or General contractor, to provide and install all flashing for rollshutters and/or habitat screens panel boxes.
- .4 If required, the Talius Authorized Dealer, or General contractor, to provide and install exterior and/or interior finishing trim for the rollshutters and/or habitat screens™.

#### 1.3 Quality Assurance

- .1 **Approved Manufacturer:**  
TALIUS  
Head Office: PO Box 3279, Salmon Arm, BC V1E 4S1  
Tel: 250-832-7777  
Fax: 250-832-8577  
Website: [www.talius.com](http://www.talius.com)  
E-mail: [info@talius.com](mailto:info@talius.com)

#### 1.4 Submittals

- .1 Shop drawings: submit shop drawings showing details of rollshutters and/or habitat screens including curtains, guide rails, panel box housing, operators and other relevant hardware.
- .2 Submit manufacturer's data sheets. Indicate specific rollshutter and/or habitat screen™ types, construction components material finishes and operators.
- .3 Rollshutters and/or habitat screens™ are detailed on architectural drawings as scheduled. Sizes shown are nominal and confirmation by field measurement is required.
- .4 Submit samples of standard colours.

#### 1.5 Products Delivery, Handling and Storage

- .1 Deliver materials to site in shipping crates and packing. Store off the ground on wood supports spaced to prevent damage. Store inside building under cover to prevent damage from weather or construction activities. Coordinate delivery with construction schedule to prevent loss or damage.

#### 1.6 Operation and Maintenance

- .1 Rollshutters and/or habitat screens™ are to be of maintenance free design.

#### 1.7 Guarantee

- .1 Manufacturer to provide a written warranty that all components are guaranteed against defects in material, design and workmanship for one year from date of installation for commercial and institutional installations and five years from the date of installation for residential installations. Installer to provide written guarantee that there will be no labour charge for warranty repairs for one year from date of installation.

### PART 2 - PRODUCTS

#### 2.1 Rollshutters

##### .1 The Rollshutter curtain:

The Rollshutter curtain is to be made from individual rollformed aluminum profiles with an injected insulated hard foam core and shall have a cover width of 40 mm and a thickness of 9.0 mm. The minimum aluminum gauge is to be 0.33 mm. Finish being a polyurethane/polyamide topcoat with a dry film thickness of at least 0.03 mm. The minimum weight per square metre is to be 4.55 kg. Manufacturer's description: **SHIELD MINI.**

**PART 2 - PRODUCTS***(continued)***.2 Guide Rails:**

The guide rails are to be heavy gauge aluminum extrusions fitted with two noise and weather insulating strips. All guide rails must have undergone a multiple stage chromate procedure and be painted with a baked-on paint. Guide rails to be acid, alkali and oil resistant. The guide rail is to be made of two snap-together parts that prevent unauthorized access to the mounting screws. Curtain penetration into the guide rail shall be at least 40 mm (1-9/16"). Manufacturer's description: **SAFE-40 RAIL**.

On Rollshutter sections where width dimensions exceed 3.05 m (120"), split the Rollshutter into two or more sections by means of a centre guide rail(s). Manufacturer's description: **SAFE CENTRE RAIL**.

**.3 Sill:**

If applicable, provide a 30 mm x 47 mm (1 1/8" x 1 13/16") U-shaped aluminum sill to hold the curtain securely in place when closed. Manufacturer's description: **SAFE U-SILL**. Where the U-sill is exposed to weather, drill a minimum of two "weep" holes in the inside channel of the U-sill to allow for moisture drainage.

**.4 Build-Up:**

If applicable, provide heavy-gauge aluminum build-up underneath the guide rails, along the panel box top, panel box bottom, and sill. Unless otherwise specified, the width of the build-up is to be 35mm (1-3/8"), depth to be suitable to provide obstruction free operation of the Rollshutter curtain.

**.5 Panel Box Housing:**

Panel boxes are to be precision rollformed from 1.0 – 1.2mm (0.040" – 0.0472") aluminum with an electro-statically bonded and baked finish. Lower half of the panel box must be detachable for future servicing access. Panel box service lid to be secured with tamper-proof security screws on all panel boxes below 2.13m (7') off the ground. All panels to be delivered to jobsite covered with protective, adhesive plastic film to prevent scratching. The protective film is to be removed by installer after job completion. All panel box endplates to be manufactured by pressure die-casting procedure from high grade aluminum alloy. Endplates must be chromed and laminated with a resistant PVC surface. The panel box style to be 5-corner. Panel box sizes to suit Rollshutters dimensions.

**.6 Colour Selections:**

Unless otherwise indicated, items to be selected from manufacturer's standard colour range: white, beige, brown, black and silver.

- rollshutter curtain
- rollshutter curtain bottom profile
- guide rails
- sill
- aluminum build-up
- panel box housing

**.7 Operation:**

Unless otherwise indicated, the Rollshutters shall be electrically operated. Provide a tubular 120 VAC motor installed inside the shaft. The motor unit shall be constructed with solenoid brakes, thermal overload protection switch with automatic reset and enclosed, permanently lubricated bearings and gears. All electrical components to be C.S.A. and U.L. certified. Each motor unit shall be controlled by a momentary-contact, three position toggle switch. The switches are to fit standard electrical boxes. Switch locations as shown on drawings. The Wiring is per manufacturer's instructions and to local electrical code requirements.

**PART 2 - PRODUCTS***(continued)*

Supply and installation of electrical wiring (including drilling of wiring routing holes through mounting surfaces) mounting of supplied electrical switches, and the connection of all wiring to be performed by certified electricians.

**.8 Locking Devices:**

All rollshutters will be equipped with hanger locks constructed of corrosion resistant materials. Hanger locks are to be installed at sufficient intervals between shaft and curtain in order to prevent the curtains from being lifted by more than 40 mm (1 9/16") from the closed position, without the use of an operator. Talius hanger locks meet the requirements of European Standard EN 13659 and resist an upward force of 100 kg (220 lbs).

**2.2 Habitat Screens****.1 The Habitat Screen curtain:**

The Habitat Screen curtain is to be made from exterior, vinyl-coated polyester roller shade fabric, with a 28% polyester, 72% vinyl on polyester composition. The openness factor (O-F) is approximately 5%. The weight of the curtain is to be 522 g/m<sup>2</sup>, 0.000742 lbs/inch<sup>2</sup>, or 15.4 oz/yd<sup>2</sup>. The thickness of the Habitat Screen curtain is to be 0.74 mm, 0.029 inch. The breaking strength of the Habitat Screen curtain is warp: 350 lbs/inch and fill: 235 lbs/inch. Each side of the Habitat Screen curtain must feature a #4.5 Coil zipper attached via heat weldable film and welding process. Standard fabric roll widths of 126", to minimize visible seams. Horizontal seaming of screen material is required when the height and width of the Habitat Screen exceeds the size of the fabric roll width.

Fire classification for Habitat Screen Fabric is:

- California Technical Bulletin 117 Sec. E. (CS-191-53)
- NFPA 101 (Class A Rating)
- IBC Section 903.1 (Class A Rating)

Manufacturer's description: **SUNTEX® 95.**

**.2 Guide Rails:**

The guide rails are to be heavy gauge aluminum extrusions fitted with a PVC guide rail insert. All guide rails must have undergone a multiple stage chromate procedure and be painted with a baked-on paint. Guide rails to be acid, alkali and oil resistant. The guide rail is to include ¼", 6.5 mm build-up to incorporate slide-on Talius aluminum build-up. Curtain penetration into the guide rail shall be at least 26 mm (1"). Manufacturer's description: **HABITAT SCREEN PRO GUIDE RAIL WITH EDGE RETENTION INSERT.**

**.3 Bottom Profile:**

The Habitat Screen™ Bottom Profile is to be made of two aluminum extrusions fitted together with a retaining channel for the screen fabric at the bottom. The extrusions are to be minimum 0.055" or 1.40 mm wall thickness and weighing 1.10 kg/lineal meter raw combined extrusion. The Bottom profile will be fitted with a weather insulating seal at the bottom. The Bottom Profile must allow for secure fitting of internal weight bars where required. The Bottom Profile must have undergone a multiple stage chromating procedure and be painted with baked-on paint. Bottom Profile to be acid, alkali, and oil resistant. The ends of the Bottom Profile must be capped off with a PVC caps.

**PART 2 - PRODUCTS***(continued)***.4 Sill:**

If applicable, provide a 22 mm x 42 mm (7/8" x 1-11/16") L-shaped aluminum sill for the Habitat Screen bottom profile to rest upon when closed. Manufacturer's description: **L-SILL**.

**.5 Build-Up:**

If applicable, provide heavy-gauge aluminum build-up underneath the guide rails, along the panel box top, and panel box bottom. Unless otherwise specified, the width of the build-up is to be 35 mm (1 3/8"), depth to be suitable to provide obstruction-free operation of the Habitat Screen curtain.

**.6 Panel Box Housing:**

Panel boxes are to be precision roll formed from 1.0 - 1.2 mm (0.040" - 0.0472") aluminum with an electro-statically bonded and baked finish. Lower half of the panel box must be detachable for future servicing access. Panel box service lid to be secured with tamper-proof security screws on all panel boxes below 2.13m (7') off the ground. All panels to be delivered to jobsite covered with protective, adhesive plastic film to prevent scratching. The protective film is to be removed by installer after job completion. All panel box endplates to be manufactured by pressure die-casting procedure from high grade aluminum alloy. Endplates must be chromed and laminated with a resistant PVC surface. The panel box style to be 5-corner. Panel box size is 125 mm, or 5".

**.7 Colour Selections:**

Unless otherwise indicated, items to be selected from manufacturer's standard colour range: white, beige, brown, black and silver.

- Habitat Screen™ curtain
- Habitat Screen™ bottom profile
- guide rails
- sill
- aluminum build-up
- panel box housing

**.8 Operation:**

Unless otherwise indicated, the Habitat Screens shall be electrically operated. Provide a tubular 120 VAC motor installed inside the shaft. The motor shall be constructed with an internal Radio Frequency

Receiver and electronically programmable limits. The motor unit shall be constructed with solenoid brakes, thermal overload protection switch with automatic reset and enclosed, permanently lubricated bearings and gears. The motor shall be controlled wirelessly by a solar powered RTS Sun Sensor. For service and building maintenance by district staff: Exterior Solaris RTS remotes required to allow for individual shade control and to allow for turning on/off sun sensors, to accommodate service and building maintenance needs.

All electrical components to be C.S.A. and U.L. certified.

The Wiring is per manufacturer's instructions and to local electrical code requirements.

Supply and installation of electrical wiring (including drilling of wiring routing holes through mounting surfaces), mounting of supplied electrical switches, and the connection of all wiring to be performed by the certified electricians.

## **PART 3 – EXECUTION**

### **3.1 Installation**

- .1 Rollshutters, Habitat Screen and hardware as described herein shall be installed by approved Habitat Screen installers. Installers must be factory authorized and installation must proceed in accordance with manufacturer's installation instructions.
- .2 The Rollshutter and Habitat Screen contractor shall provide written confirmation before commencing installation that its Workers' Compensation Board account is currently active and in good standing, and that all of its employees working on site are covered by the Habitat Screen contractor's WCB account.
- .3 The Rollshutter and Habitat Screen contractor will supply and use mounting hardware suitable for the mounting surface application, including hollow-wall and concrete anchors when necessary. The mounting hardware size is to be a minimum of #8 x 2" Mounting hardware for the guide rails, build-up L-sills to be installed between 20 cm – 30 cm (8" – 12") on centres. The mounting hardware for the panel box to be installed between 40 cm – 50 cm (16" – 20") on centres, horizontally along the top inside corner of the panel box, and each screw head to be supplemented with a large flat washer to avoid tearing through the sheet aluminum. Each cast aluminum end plate on a panel box to be secured with one fastener to the mounting surface.

When installation into brick or concrete surfaces is necessary, mounting hardware to be used shall be Tapcon style of suitable diameter and length.

- .4 Install Rollshutters and/or Habitat Screens plumb, true, square and level, free from distortion or defects affecting appearance or performance. Adjust and test moving parts to ensure smooth operation.
- .5 Suitable exterior caulking to be applied by the Rollshutter and Habitat Screen contractor around the exterior perimeter of the completed Rollshutter and/or Habitat Screen installation to prevent infiltration of moisture, wind and debris behind the Habitat Screen when the curtain is fully closed.
- .6 All work to be completed in a professional, safe and timely manner.

### **3.2 Clean-Up**

- .1 As the work proceeds and upon completion, clean up and remove from the site all rubbish and packages. Leave all Rollshutter, Habitat Screen and fixed panel parts clean.

### **3.3 Schedule**

- .1 As per the Jobsite Specification Addendum.