# **COMMERCIAL TENDER & WARRANTY SPECIFICATIONS**



# **SOLAR** - TENDER SPECIFICATIONS

# Solar Collector Panel (Sunbather HiPEC).

Solar Collector Panel will be HIPEC or Commercial Grade if specified, extruded elastomeric material formulated to have long life (15 Year Warranty) when subject to weathering in the Australian sun. Solar collector arrays will be configured to take best advantage of available roof areas but with hydraulic design as the first priority. Solar collector webbing will be punched nominally every 25mm with 5mm diameter drainage holes. This improves drainage, reduction of roof moisture, and improved glue bond to roof material. Solar collector will be batch stamped with manufacturer and date of

production every 2 lineal metres of extrusion.

Solar collector will be manufactured from materials in accordance with AS2369.2-1993 Materials for Solar Collectors for Swimming Pool Heating.

**Pipework:** 

All pipework will be class 9 PVC pressure pipe for diameters up to 80mm and class 6 or 9 for diameters equal to or greater than 100mm. Pipe will be solvent welded joint (SWJ) using approved solvents. Adequate support will be given to all pipework to positively locate it, at the same time allowing for movement due to thermal expansion. Thermal expansion movement will be taken up using offsets in the pipe layout.

Pipe anchors will be used where no movement is to be allowed. Solar collector manifold must be sized to provide an even distribution of water flow through the entire solar collector.

Pipe Size	Mean OD	Mean Bore ID	Mean Wall	Mass Kg/6m Length
40mm	48.25mm	42.8mm	2.73mm	3.4mm
50mm	60.35mm	53.7mm	3.33mm	5.3mm
65mm	75.35mm	67.0mm	4.18mm	8.2mm
80mm	88.90mm	79.0mm	4.95mm	11.5mm
100mm	114.30mm	101.7mm	6.30mm	20.0mm

# **Isolating, Balancing & Check Valves:**

Isolating Valves: These will be lever-operated butterfly valves incorporating stainless steel disc or equivalent and EPT liner or PVC ball valves of appropriate size.

**Balancing Valves:** As for isolating valves. System balancing will be accomplished with an ultrasonic flow meter.

**Check Valves:** Wafer type with cast iron body and stainless steel flaps or PVC body with internal PVC ball of required size.

Sunbather material will be affixed to the roof using appropriate adhesive applied at intervals of up to 600mm.

On metal deck roofs (including corrugated iron) the strips will be run transverse to the roof ribs to eliminate any possibility of water entrapment beneath them.

Where space permits strips may be spaced apart to improve solar collector output by gaining an effective roof contribution. Attachment of the individual solar collector tubes into the hydraulic

circuit/manifolds will be by internal compression connection, unique to Sunbather. (see illustration on page opposite).

No synthetic rubber components, including grommets, will be allowed in contact with pool water. Some rubber products will break down over time and perish when in contact with pool water chemicals.

### Pump:

A solar circulation pump will be used to provide water circulation through the solar collector. This will take water from the pool filtrate line or sump, pass it through the solar collector and thence back into the filtrate line or sump. Pump construction will be of commercial quality and feature a combination of the following depending on required pump duty and water conditions:

- Back pull out design.
- · Stainless steel shaft.
- Polymer / Bronze / Stainless steel impeller.
- Polymer / Cast iron (optional epoxy coating) / Stainless steel housing
- Mechanical seal (optional seal flushing kit on cast iron housings).
- TEFC motor (240Vac single phase or 415Vac three phase)

Pump duty will be based on a flow-rate of 0.035 litres/m<sup>2</sup>/s applied to the solar collector area or that which is specified.

For all other pump details refer to manufacturer's specifications.

# Automatic Controller – Digital Readout

Sunbather will provide controls designed to interface with existing equipment ( Gas Heating, Heat Pumps and BMS systems) to maximise running cost saving potential.

Its specifications will be:

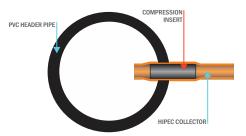
- switch on differential 7 °C
  switch off differential 2°C
- over-temperature cut out 40°C
- Adjustable top-out temperature.

# SOLAR - HIPEC TECHNICAL DATA

# **HiPEC Solar Collector Strip.**

Sample Type: Material Type: Last Reviewed:	Black coloured "Solar Absorber" extrudate PVC HiPec "Lead Free" August 2011
Introduction:	Solar Black is a lead free, extrusion grade flexible PVC compound. It is developed specifically for solar tubing that is used for heating swimming pools. Solar Black has been designed and externally tested to comply with the Australian Standards AS2369.2-1993 "Materials for Solar Collectors for Swimming Pool Heating – PVC". Solar Black contains no Lead, Cadmium, Barium or Tin (this applied to all colours available).
Properties:	Hardness:78A ASTM D2240 (10 second delay)Specific Gravity:1.24± 0.02Tensile Strength:16.8 mPa ASTM D412Elongation at Break:260% ASTM D412Dry Weight:2.87 kg/sqm
Test Requirement: Test Equipment: Test Method: Test Duration: Test Conditions:	Accelerated Weathering Test (as per AS2369.2-1993-Materials for solar collector for swimming pool heating.) QUV Accelerated Weathering Tester ASTM G154 (supersedes G53) 10,000 hours Cycles of 4 hours @ 60°C with UVB 313 type lamps and 4 hours @ 50°C with 100% humidity
Observations:	Before Test – Satin finish material with consistent colour and surface finish. Sample is flexible and exhibits good "memory" After Test – No change in surface finish or colour. No significant difference in flexibility and memory is retained
Conclusion:	The sample of Black coloured "solar absorber" extrudate showed no observable difference in colour and no observable difference in surface finish and physical properties between exposed and unexposed samples. From this observation the sample would be good for outdoor use, involving constant and direct exposure to sunlight and precipitations.
Processing:	The recommended processing temperatures for Solar Black are between 150°C to 170 °C depending on the condition of the processing equipment.
NOTE:	Recommended fixing method is pressing base of extrusion into beads of high viscose silicone, spaced at approximately 600mm centres.





Sunbather's unique **Compression Manifold Connection** is quick and easy to install or repair and pressure tested to eliminate leaks.

SOLAR - FLEXIBLE STRIP SOLAR WARRANTY

# Solar Warranty - Effective from 1st January 2020:

We the manufacturer and supplier warrant that a Sunbather HIPEC solar collection extrusion is guaranteed to continue performing the function for which it was designed; limited to heating swimming pool water. No other function or purpose applies.

Sunbather offers this warranty to rectify, free of material charges any defects caused solely by faulty workmanship, manufacturing or materials only, as long as the product is subjected to normal use and service. Subject to Sunbather's Terms and Conditions of Trade, and exclusions mentioned below, the solar pool heating system has the following component warranties.

- Black HiPEC Solar Extrusion: Warranted for 10 years, plus 5 years of pro-rata warranty reducing at 50% of residual value annually until expiration of the full 15 year period.
- Colour HiPEC Solar Extrusion: Warranted for a period of 4 years.
- Solar Pump: Sunbather pass on the pump manufacturer's warranty. Refer to your pump manufacturer.
- All Sunbather Controllers: 2 year replacement warranty. 1 year (12 months) on sensors.
- All PVC pipe & fittings, and all other related components and accessories: 1 Year (12 months).
- Kwik-Lok manifolds: 3 Years
- Installation: 1 Year (12 months).

# **Exclusions to this warranty:**

- 1. Damage or failure of equipment caused directly or indirectly by any work done on the system by a person not authorised by Sunbather.
- 2. Damage to metal roofs or gutters or drinking water storages caused by water leakage from the solar system, or for any other consequential damage caused by chemically treated water flowing through or from the solar system, or from rainwater ingress caused by blocked gutters or obstructed watercourses. It is the owner /purchasers responsibility to keep the roof & waterways clear of debris which may cause the restriction of the natural water flow.
- 3. Incidental or consequential loss.

# **General Conditions:**

- · This warranty period applies strictly from date of invoice.
- This warranty is not transferrable.
- It is a condition of this warranty that the solar system be inspected annually and any faults reported within 14 days from inspection date to Sunbather.
- All Sunbather solar systems must be installed in strict accordance to the installation manual. Any variations of installation works to the manual will void warranty.
- It is highly recommended that an authorised Sunbather serviceperson inspect annually to ensure maximum operation efficiency.

# **Additional Bird and Rodent Protection Plan:**

In the highly unlikely event of damage by cockatoos or rodents to your Sunbather Solar Collector, the original purchaser of the system will be covered for the following:

**12 Month Full Cover** following original installation of the solar system: During this period if any collector is damaged by birds or rodents, the affected collector area will be repaired or replaced at no cost to the owner. Labour, freight and travel costs are applicable and will be charged to the customer.

5 Year Extended Cover following the first 12 months full cover: If any area of solar collector is damaged by cockatoos or rodents, the affected area will be repaired or replaced at one half of the then retail price. Labour, freight and travel costs are applicable and will be charged to the customer.

- Colour variations or fading of solar extrusions [except black] over time.
- 5. Damage caused by bird, rodent, or vermin life unless otherwise stated.
- 6. The condition of existing equipment and pipework that may affect the correct operation of the solar pool heating system.
- 7. Labour or travel costs incurred after the first 12 month warranty period.
- 8. Damage or failure due to conditions beyond the reasonable control of Sunbather. Acts of God or extreme weather conditions.
- 9. Any travel, freight and/or associated costs with warranty claims.

# SOLAR - SUNTUBE-2 TECHNICAL DATA

# Suntube-2 Solar Collector Panel.

# Product Name: Manufacturer: Place of Manufacture: Solar Panel Type:

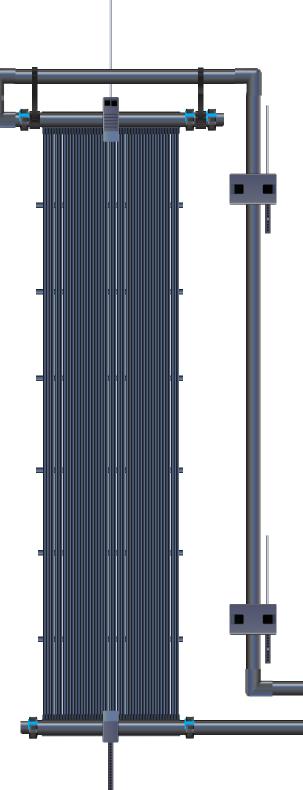
Suntube-2 Solar Pool Heating Panel Aspire Polymers Pty Ltd Victoria, Australia Unglazed Rigid Single Form Panel

#### Materials:

- Manifold & Tubing
- Overmould
- Clamp system
- Fittings
- High Heat, High Impact, UV stabilised Polypropylene
- UV stabilised Thermoplastic Elastomer Compound
- Glass Filled Nylon, High Heat & UV Stabilised
  High Heat, High Impact, UV stabilised ASA
- nigii neat, nigii ilipac

Dimensions:	Length Actual	Width	Area m <sup>2</sup>	Weight
	• 1580mm	600mm	0.95 sqm	3.01 kg
	• 1880mm	600mm	1.13 sqm	3.39 kg
	• 2480mm	600mm	1.49 sqm	4.13 kg
	• 3080mm	600mm	1.85 sqm	4.88 kg
	• 3380mm	600mm	2.03 sqm	5.26 kg
	• 3980mm	600mm	2.39 sqm	6.00 kg
	• 4280mm	600mm	2.57 sqm	6.38 kg

Number of Tubes:	50
Tube Outside Diameter:	8.0mm
Tube Inside Diameter:	6.0mm
Tube Pitch:	10mm
Tube Wall Thickness:	1.0mm
Average Flooded Weight:	6.61 kg/m <sup>2</sup>
Maximum Pressure:	500 kPa
Maximum Temperature:	70°C



# SOLAR - SUNTUBE-2 SOLAR WARRANTY

# Solar Warranty - Effective from 1st January 2022:

We the manufacturer and supplier warrant that a Sunbather Suntube-2 solar collector is guaranteed to continue performing the function for which it was designed; limited to heating swimming pool water. No other function or purpose applies.

Sunbather offers this warranty to rectify, free of material charges any defects caused solely by faulty workmanship, manufacturing or materials only, as long as the product is subjected to normal use and service. Subject to Sunbather's Terms and Conditions of Trade, and exclusions mentioned below, the solar pool heating system has the following component warranties.

- Suntube-2 Rigid Panel: Warranted for 15 years.
- Solar Pump: Sunbather pass on the pump manufacturer's warranty. Refer to your pump manufacturer.
- All Sunbather Controllers: 2 year replacement warranty. 1 year (12 months) on sensors.
- All PVC pipe & fittings, and all other related components and accessories: 1 Year (12 months).
- Installation: 1 Year (12 months).

# **Exclusions to this warranty:**

- 1. Damage or failure of equipment caused directly or indirectly by any work done on the system by a person not authorised by Sunbather.
- 2. Damage to metal roofs or gutters or drinking water storages caused by water leakage from the solar system, or for any other consequential damage caused by chemically treated water flowing through or from the solar system, or from rainwater ingress caused by blocked gutters or obstructed watercourses. It is the owner /purchasers responsibility to keep the roof & waterways clear of debris which may cause the restriction of the natural water flow.
- 3. Incidental or consequential loss.
- 4. Damage caused by bird, rodent, or vermin life unless otherwise stated.
- 5. The condition of existing equipment and pipework that may affect the correct operation of the solar pool heating system.
- 6. Labour or travel costs incurred after the first 12 month warranty period.
- 7. Damage or failure due to conditions beyond the reasonable control of Sunbather. Acts of God or extreme weather conditions.
- 8. Any travel, freight and/or associated costs with warranty claims.

# **General Conditions:**

- This warranty period applies strictly from date of invoice.
- This warranty is not transferrable.
- It is a condition of this warranty that the solar system be inspected annually and any faults reported within 14 days from inspection date to Sunbather.
- All Sunbather solar systems must be installed in strict accordance to the installation manual. Any variations of installation works to the manual will void warranty.
- It is highly recommended that an authorised Sunbather serviceperson inspect annually to ensure maximum operation efficiency.

### **Additional Bird and Rodent Protection Plan:**

In the highly unlikely event of damage by cockatoos or rodents to your Sunbather Solar Collector, the original purchaser of the system will be covered for the following:

**12 Month Full Cover** following original installation of the solar system: During this period if any collector is damaged by birds or rodents, the affected collector area will be repaired or replaced at no cost to the owner. Labour, freight and travel costs are applicable and will be charged to the customer.

**5 Year Extended Cover** following the first 12 months full cover: If any area of solar collector is damaged by cockatoos or rodents, the affected area will be repaired or replaced at one half of the then retail price. Labour, freight and travel costs are applicable and will be charged to the customer.

# THERMAL - TENDER SPECIFICATIONS

# **Blanket Material**

Blankets shall be fabricated from UV stabilised closed cell cross-linked polyethylene foam laminated between a UV stabilised woven polyethylene fabric top and bottom.

Lamination shall be accomplished by flame bonding between the layers. Material shall be manufactured to quality management standard AS-NZS-ISO. 9002

Nominal thickness shall be:

- 2mm [2000 Microns] or
- 4mm [4000 Microns] or
- 6mm [6000 Microns].
- Thermal resistance shall be nominally:
- [2mm] 0.08 m<sup>2</sup>K/W
- [4mm] 0.13 m<sup>2</sup>K/W
- [6mm] 0.17 m<sup>2</sup>K/W

# Wind Retention (Outdoor Pools).

Each blanket shall have fitted along all longitudinal edges effective means of reducing blanket dislodgment or blow off from the pool water surface.

Weighted flexible rope of no less than 20 grams per metre contained within a mesh material, which is double stitched to the blanket edge, will be the minimum acceptable requirement.

Mesh material must have specific gravity greater than 1.0.

# THERMAL BLANKET - TECHNICAL DATA: .

### **PERFORMANCE PROPERTIES - 3.5mm TEST SPECIMEN:**

UV Resistance - AS 2001.4.21 **Chemical Resistance** Flex Resistance Dry Delamination Resistance - AS 4201.1 Water Vapour Transmission Rate - ASTM E96 99.9% Reduction

No reduction in tensile strength Excellent Good Pass

Tensile Strength - AS 2001.2.3	2790 N MD	2339 N CD
Elongation At Break - AS 2001.2.3	19.2% MD	17.5% CD
Tear Strength - AS 2001.2.10	490 N MD	406 N CD
Water Absorption	3.8 x 10-4 g/cm	2
JIS K6767 Thermal Resistance (R-Value) - AS 4	859.1	0.08 m <sup>2</sup> K/W

### MATERIAL PROPERTIES:

Thickness	2mm or 4mm or 6mm
Width	2000 mm
Foam Colour	Colour range available on request
Film Filament Count	3.9 x 3.9 per cm
Film Colour	Colour range available on request
Temperature Range	-40°C – 70°C

### PLEASE NOTE:

Thermal Covers are not safety covers and are not designed to support the weight of humans or animals. Do not attempt to walk on or swim under the cover. Remove the cover completely before entering the pool.

# THERMAL - TECHNICAL DATA

### Blanket Edge Protection (Indoor Pools):

Each blanket shall have woven protective mesh double stitched along its entire longitudinal edges to protect against wear and abrasion. Woven mesh shall be a minimum width of 25mm on both top and bottom of blanket edge.

### End Detail:

- Both leading and trailing edges of the blanket shall be multilayered and reinforced with double stitching.
- The leading edge of each blanket shall incorporate a substantial stainless steel central pull eyelet for haul cord attachment.
- The trailing edge of the blanket shall be connected to its storage roller by attachments at intervals no greater than 600mm.

### Haul Cords:

Each blanket system shall be supplied with a haul cord of adequate length to enable the user to attach it to the blanket and walk with it to the opposite end of the pool.

One end shall have a non-corroding spring clip for connection to the central pull ring. Haul cords will be black and float in water.

- Attachment cords shall be detachable from the roller tube and be of a material suitable for the application.
- All attachment cords and ropes shall be terminated in an effective manner by swaging with non-corroding materials or termination with a suitable knot.

### **THERMAL BLANKET - WARRANTY - Effective from 1st January 2020:**

This warranty is a month by month pro-rata warranty over 5 years for 2mm blankets and 8 years for 4mm and 6mm blankets. Sunbather will compensate for the number of months that your pool cover does not achieve its intended purpose, if found to be defective in material or Sunbather workmanship (up to the maximum warranty period).

The customer is liable for the months the cover has been in use. This warranty is not redeemable for cash and can only be used as a discount on a replacement pool cover purchase from Sunbather. This warranty only applies to the original purchaser and is non-transferable.

All other cover accessories including, but not limited to, eyelets, sewn edges, straps, cords, & wind skirts are warranted for a period of 12 months.

In addition to any statutory rights the customer may have, we the manufacturer and supplier warrant that your Sunbather Thermal Cover is guaranteed to continue performing the function for which it was designed, for a minimum of 5 years (2mm) and 8 years (4mm & 6mm) - providing the product has been used and maintained in accordance with the exclusion/conditions.

It is a requirement that your cover is returned to your nearest Sunbather office and all freight costs are payable by the customer.

If upon examination of the cover, we determine it to be defective in material or Sunbather workmanship, we will repair or if necessary, replace the cover with the following exclusions.

# **Exclusions/Conditions to this Warranty:**

- 1. The purchaser failing to comply with Sunbather installation instructions.
- 2. Normal wear and tear.
- 3. Any incidental or consequential losses.
- 4. Marginal stretch or shrinkage of the material (up to 5%).
- 5. Overheating the cover in temperatures greater than 40 degrees, either in storage or on the pool/spa.
- Acts of god or extreme weather conditions. Under such circumstances we recommend that your cover is removed and safely stored.
- 7. The user subjecting cover(s) to stress conditions which may result in tears, undue creases, cuts or damage.
- Mismanagement of water balance. Do not let your chemical concentration exceed normal, advised levels. Always follow instructions on chemical containers. Damage caused by incorrect water balance is not a manufacturing fault and will not unduly affect the thermal performance of the cover, e.g. fading or bleaching.
- 9. Any travel, freight and / or associated with warranty claims.
- 10. Proof of purchase must be supplied.
- 11. This warranty applies from invoice date.
- 12. Claims must be made to your nearest Sunbather Pty Ltd branch.
- 13. Replacements do not come with a new warranty period.

### PLEASE NOTE:

Requests for onsite service calls will be fully chargeable if the product, fault, or damage in question is found not to be covered by warranty.

# **COLLERS** - TENDER SPECIFICATIONS

# a Hand Operated Mobile Storage Rollers

Shall consist of a roller of sufficiently large diameter to enable the cover to be wound on with minimal or no creasing. This roller will rotate on shafts running in bearings connected to fully welded end Carriages. For covers over 25m in length the rollers will be driven by handwheels. Covers 25m and under may be driven by crankhandles.

Handwheels, crankhandles, bearing housings and end carriages shall be chemically electropolished 304-grade stainless steel. Electropolishing shall be by process compliant with ASTM 380.

[Powder-coating and clear coating options available on request].

Bearings shall be low friction and easily replaceable.

Rollers shall be of a diameter which when fully loaded with wet blankets will not deflect more than 1/300 of their span.

Anodising shall be to AS 1231-2000 and to a depth of 15 to 25 micron.

Rollers shall be fixed to their shafts in such a way as to distribute load stresses away from the very end of the tube and so as to minimise eccentricity of roller with respect to shaft.

Polyurethane, or similar bumper pads shall be fitted to the end carriages to prevent damage to and from collision with pool copings during deployment or retrieval operations.

# [b] Roller Wheels & Braking Systems:

Roller wheels shall be nylon with stainless steel swivel castors. Swivel and wheel brakes will be used where the roller bears against a pool coping during its use. Where no pool coping exists rollers must be located in position using drop bolts.

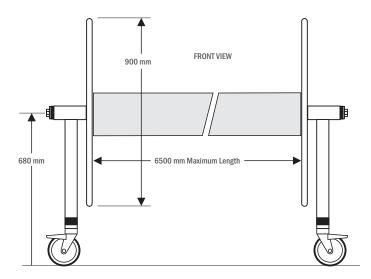
**Drop bolts:** a robust stainless steel rod engaging into a stainless sleeve recessed into the floor surface and then retracted when not in use. This ensures exact positive roller positioning every time. End of the roller with polyurethane or similar bumper pad to avoid damage to floors.

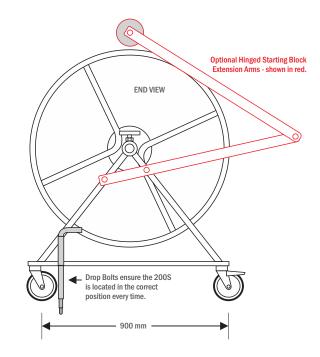
# Hand Operated Wall-Mounted Rollers:

Specification to be broadly the same as in [a] & [b].

End frames shall be of anodised aluminium as in 6.2 and designed so as to adequately support the pool blanket and roller mechanism. End frames may also need to be designed to fix appropriately to the pool building structure.

Bearings shall be of stainless steel and self-aligning.







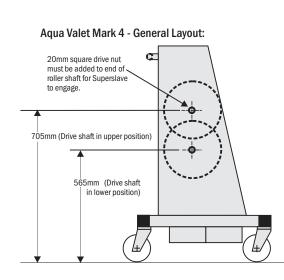


# Motorisation of Mobile Storage Rollers (Aqua Valet):

A portable machine incorporating drum winch and drive shaft to couple with roller shafts will be used to motorise Sunbather floor-standing, wall-mounted or under-seat 200S rollers.

It will incorporate SOFT-START and SPEED CONTROL technology. Unit will be 24 volt and supplied with automatic battery charger.

This machine is designed for one person operation and will be constructed of corrosion resistant materials including polished 304 grade stainless steel and anodised aluminium.





# Motorised [Aqua Valet] In Pit Rollers:







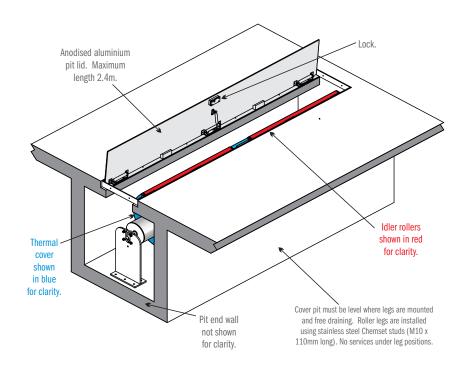
Blanket roller shall be of anodized aluminium and clear-span for the width of each pool cover with allowance for cover "run-out" mounted by a 12mm Aluminium endplate and suitable bearing.

Endplates to be fixed into the ground using stainless steel Chemset studs (M10 x 110mm).

Operation of the pool cover is by Sunbather Aqua Valet operated from pool deck using 90 degree drive and vertically adjustable extension arm. The Stainless steel extension arm connects to square drive on roller mounted in pit with a suitable gearbox to drive the roller.

Gearboxes will be specified to be of a suitable ratio so as to dispense the blanket on and off the pool at an easily managed speed controlled by the Aqua Valet speed mechanism.

Pit lid to be constructed from slip resistant material housed within an anodised aluminium frame mounted to inside or on top of pit opening.





# COLLERS - TENDER SPECIFICATIONS

# **Motorised Wall-Mounted Rollers:**

Specification to be broadly the same as in [a] & [b].

Bearings shall be of stainless steel and self-aligning. Adequately support the pool blanket and roller mechanism.

End frames may also need to be designed to fix appropriately to the pool building structure.

Blanket roller shall be generally of anodised aluminium and clear-span for the width of each pool cover with an allowance for cover "run-out".

Rollers shall not deflect more than 1/300 of their span when fully loaded with wet blankets.

Motor to drive the roller shall be 240V TEFC, or 240v tubular, or 24v to suit application and painted with a suitable epoxy paint.

Gearbox will be of suitable ratio so as to dispense the blanket onto the pool at an easily managed speed with respect to the operator's ability to pull it onto the water surface.

Operation of the roller shall be by remote control using a hand held transmitter to provide the following functions in rotational sequence: forward, stop, reverse, by pressing a button on the transmitter (remote).



# Motorised [Aqua Valet] UnderSeat Rollers:

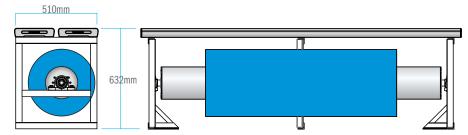
The Sunbather UnderSeat Roller is designed to be used in conjunction with the motorized Aqua Valet to drive the pool cover in and out, whilst making it as safe as possible for the operator.

Seat planks are made from Anodized aluminium, along with the roller shaft being clear-span for the width of each pool cover with an allowance for cover "run-out."

Rollers are sized to not deflect more than 1/300 of their span when fully loaded with wet blankets.

Endframes and support brackets are powder coated 304 Stainless Steel construction, with a stainless steel square drive attachment for the Sunbather Aqua Valet.

Roller lengths can be up to 6.5m for each cover width, however the seat can be designed for the full width of a pool using roller mounts at specified intervals.



Note: These dimensions are for a 25m pool cover. Seat dimensions may vary with the size of the pool and the cover.







# **Rollers WARRANTY - Effective from 1st January 2020:**

We the manufacturer and supplier warrant that the Sunbather Pool Cover Roller is guaranteed to continue performing the function for which it was designed (pool cover roller systems) for the warranty periods outlined below. No other function or purpose applies.

The Roller is to be installed on level ground and Sunbather are not responsible for adapting the roller unit from standard, to suit site specific, uneven surfaces.

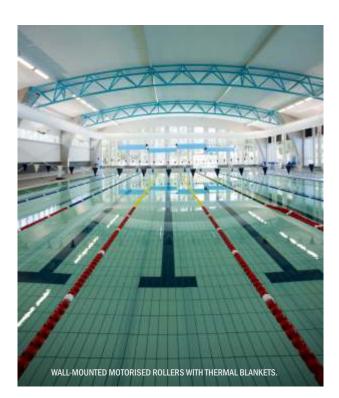
Sunbather offers this warranty to rectify, free of material charges, any defects caused solely by faulty workmanship, manufacturing, or materials only, as long as the product is subjected to normal use and service.

This warranty period specifically applies from date of invoice.

Subject to Sunbather's Terms and Conditions of Trade, the pool cover roller system has the following generic component warranties:

- All Stainless Steel End Frames: 10 Years
- Straps & Cords: 1 Year
  Installation: 1 Year

(See below for specific product warranty and exclusions)



### **Roller Types:**

Motorised Rollers:	Structural components/roller (5 years), Motors & electronics (1 Year).
Platinum Roller:	Endframes (10 years); All shafts, wheels, & accessories (1 Year)
Manual Commercial Roller R	ange (inc 114mm - 200mm shafts & custom made rollers):
	Structural components (10 years); Bearings, castor wheels & accessories (3 years)
Stainless Steel Range: (inc 1	14mm - 200mm shafts & custom made rollers):
	Structural components (10 years); Bearings & castor wheels (3 years); All other accessories (1 Year)
Motorised Aqua Valet:	Structural components (10 years); Wheel castors (3 years), motors, electronics, wiring & other components (1 Year)
Downunder Roller System:	PVC Housing (5 years); Roller parts, Roller, Gear-Drive and accessories (5 years), Gear-Drive Handle (2 years)
Seat Roller:	Endframes, lid and roller parts (5 years). Gear-Drive Handle (2 years)

# **Exclusions to this Warranty:**

- 1. Damage or failure of equipment caused directly or indirectly from work done on the system by a person not authorised by Sunbather.
- 2. Damage or failure due to conditions beyond the reasonable control of Sunbather.
- 3. Ordinary wear and tear is not a defect in workmanship or material and is not covered under this warranty. Ordinary wear and tear is to be determined by an authorised Sunbather representative.
- 4. Damage caused by overheating above 45 degrees Celsius.

- 5. Any incidental damage or consequential loss caused by faulty workmanship.
- 6. Damage caused by Acts of God or extreme weather conditions.
- 7. Damage or difficulty of use due to uneven ground surface.
- 8. Incorrect operation: failure to comply with operating instructions.
- Labour or travel costs incurred after the first 12 month warranty period.
- 10. This warranty is not transferrable.

# **SLAT COVER** - TECHNICAL DATA

# Sunbather Automatic Security Blanket - Slat Cover.

<b>Mechanical Properties:</b>		
Material designation:	RAU-PVC 1700 (polyvinyl chloride, free of plasticisers RAU-PVC 1406 (polyvinyl chloride, free of plasticisers RAU-PUR 2720 (polyurethane)	
Tear propagation resistance of t	he polyurethane hinge to ISO 34/1 in N/mm	≥55
Tensile strength of the hinge join (measured on a 25 mm test speed: 50 mm/min	-long profile cutting;	≥ 150
Coefficient of linear expansion i	n 1/°K to DIN 53752	approx. 0.8*10-4
Xenotest 1200 artificial weathe 4,000 h to ISO 4892	ring test, parallel, cycle 102:18 min,	grey scale > stage 3
Weight per m² in kg		approx. 7.0
Load capacity, free-floating per	m² in kg	approx. 4.4

The values for the tensile strength and the tear propagation resistance of the hinges were determined with profile cuttings which had been aged (at least 24 hours). Other characteristic data can be seen from the REHAU material data sheets AV 0200, AV 0280 and AV 0080 in their latest versions.

### **Dimensions and Permissible Deviations:**

All dimensions and tolerances are specified in the REHAU drawings PK-57246 in their latest versions.

#### **Surface Quality and Colour:**

As a result of the special production process a closed and easy-to-clean surface is achieved. In addition to this, special material formulations have been developed for this application. However, depending on the location of the swimming pool, changes in colour, particularly in the case of bright colours, and also certain surface changes should be expected. These changes can be caused by UV rays and other environmental influences. Also, depending on the location and also the water quality and water composition of the swimming pool, a coating could form and/or discolouration could occur in the hinge area.

This is state of the art and is therefore not connected with any changes to the material properties specified. The functionality of the polyurethane bond remains unchanged. The coating formation can be removed immediately after it occurs using a high-pressure cleaner or brush.

#### **Colours:**

- White,	Colour No.: 69572
- Light Blue / Pebble Grey,	Colour No.: 74031 / 69571
- Light Ivory,	Colour No.: RAL 1015
- Pebble Grey,	Colour No.: 69571
- White / Pebble Grey,	Colour No.: 69572 / 69571



# SLAT COVER - WARRANTY

## Slat Cover Warranty - Effective from 1st November 2012:

We the supplier warrant that the Sunbather Pool Cover Roller is guaranteed to continue performing the function for which it was designed (pool cover roller systems) for the warranty periods outlined below. No other function or purpose applies.

This warranty covers the repair or replacement of any faulty Sunbather supplied component, and we may, at our sole discretion, elect to either repair or replace such faulty components.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law.

All claims must be made direct to Sunbather Pty Ltd and must be accompanied by an invoice or proof of purchase. The warranty periods stated below are from "Invoice Date."

The pool cover system supplied will require regular inspection, maintenance, servicing and eventual replacement.

#### Subject to Sunbather's Terms & Conditions of Trade, the Security Blanket CVX cover/roller system has the following component warranties:

The CVX Foam Filled Pool Cover: The cover is warranted for a period of five (5) years as per manufacturers warranty. This warranty will not cover exceptional circumstances, such as, chemical spillage onto the cover, heavy falling objects, storm damage, or damage caused by people walking/jumping on the cover. Slats joined by dowelling are included in this warranty. It is also a requirement of this warranty that you keep your pool chemical balance within recommended levels. Some fading may occur over time.

Stainless Steel Roller Mechanism: The stainless steel mechanism including the roller itself and all stainless components are warranted for a period of five (5) years.

# **Exclusions to this warranty:**

- Water Chemistry: Pool chemistry must not exceed 2ppm free chlorine levels and pH must not range outside of 7.0 - 7.5. If shock treating the pool, ensure pool cover is off the pool to allow free chlorine to dissipate.
- It is important that the sanitisation system is automated or of a sophistication that it will not continue to over dose chlorine and/or any alternative sanitising oxidant while the cover is on the pool. ORP controlled sanitisers are recommended for this purpose. Failure to maintain correct water chemistry levels will cause damage to the cover and fully void the warranty.
- Failure to perform regular pool maintenance and cleaning.
- Damage or failure of equipment caused directly or indirectly from any work done on the system by a person not authorised by Sunbather.

Blanket Attachment Straps: Attachment and guide straps are warranted for a period of 2 years.

Electrical Components: The power supply is warranted for one (1) year and the motor and switch gear are warranted for a period of two (2) years.

In the maintenance of the product, Sunbather may use new or equivalent to new parts, assemblies or products for equal of improved quality. All defective parts become the property of Sunbather Pty Ltd.

- Damage or failure due to conditions beyond the reasonable control of Sunbather, e.g. leaving floating pool toys in the pool while operating the cover.
- Damage or failure caused by the absence of, or defective water levelling equipment or overflow as per installation requirements.
- Labour or travel costs incurred after the first 12 month warranty period.
- Ordinary wear and tear is not a defect in workmanship or material and is not covered under this warranty. Ordinary wear and tear is to be determined by an authorised Sunbather representative.
- Any incidental damage or consequential loss caused by faulty workmanship.
- Damage caused by Acts of God or extreme weather conditions.
- Damage/staining caused by leaf, organic matter and algae building up on top of the cover.

### **Important Notes:**

- 1. Requests for onsite service calls will be fully chargeable if the product, fault, or damage in question is found not to be covered by this warranty.
- 2. Roller pits need to be easily accessible by one person and any coverings need to be removable.
- 3. Charges will apply for labour associated with removing covers and Sunbather takes no responsibility for damage to coverings, e.g. if it is necessary to remove paving to access the pit, Sunbather will not be liable for damage to pavers, etc.
- 4. This warranty is not transferrable.



# FREE POOL ENERGY AUDIT

Please complete 100% of the data collection sheet below and CIRCLE the correct ?/?/? options to discover the most cost-effective to minimise your pool's carbon footprint.

Name:	Complex:		Phone:	
	OUTDOOR or INDOOR:			
Main Pool:	Length [m]	Width [m]	Average Depth [m]	
Diving Pool:	Length [m]	Width [m]	Average Depth [m]	
Kids Pool:	Length [m]	Width [m]	Average Depth [m]	
Other Pool:	Length [m]	Width [m]	Average Depth [m]	
OR	Total surface area [m <sup>2</sup> ]		Total Volume [m³]	
Bottom Colour?		Light / Dark		
Desired Water Temperat			°C	
Swimmer load?		i.e. approx number of sw	immers per day:	
Is the pool shaded?	Never / Minor (25%) /	Major (50%) / Other?		%
Wind Exposure?		ourban location / High wir	nd area	
lf an indoor pool - what i	s the internal volume of th	ne pool enclosure/building?		m <sup>3</sup>
OR	Length [m]	Width [m]	Height [m]	
Is the air inside the enclo	osure heated?	Yes / No		
If yes, to what temperatu	ıre?			° <b>C</b>
Is humidity controlled?	Yes / No	If Yes, to what Relative Humidity		%
Is a pool cover used?		Yes / No		
Are you planning to insta	all a nool cover?	Yes / No		
If yes - what type?		Bubble / Thermal Blanket / Other:		
What hours will the pool be covered?		From: To:		
Type(s) of heating to be used?		Solar / Gas / Heat Pump / Other		
If solar, which direction does roof face?		North / South / East / West / Other:		
Roof Area Available:	Length [m]	Width [m]	or Area[m <sup>2</sup> ]	
Period of Filtration:	• • •	Start Time:	Finish Time:	
Fuel Costs if Known:		Natural Gas	cents per MJ or Tariff Structure	
		LPG	cents per litre	
		Electricity	cents/kWh or Tariff Structure.	
		-	*	



# AUSTRALIAN MADE.

Sunbather is a proudly Australian company.

For over 45 years they have been delivering practical, environmentally responsible, leading-edge, cost-effective heating and heat retention solutions all over Australia and around the world.

Today, they are one of the most trusted names in commercial pool heating technologies.

FOR SPECIFICATIONS AND TENDER INFORMATION ON SUNBATHER PRODUCTS SEE THE SUNBATHER WARRANTY & DOCUMENTS BROCHURE OR VISIT www.sunbather.com.au.



# NATIONAL SUPPORT NETWORK.

Commercial systems need prompt and expert technical service and support and Sunbather has **branches and agents across Australia** dedicated to providing that support.

As a local manufacturer, bespoke solutions can be quickly created to resolve any unusual problems.

Australian Standard AS 3634-1989 & AS 2369.2-1993 compliant. SPASA & SEIA member. OH & S compliant. QBCC Licensed: # 728206 NSW Fair Trading Licence No: 26792C Full Insurance & Liability Cover.

# Sunbather Solar Pool Heating & COVERS

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