# Specification for Mehler 8506 Fabric



# POLYMAR 8506 MEHATOP F

## TECHNICAL INFORMATION

Colour	White			
Base Fabric	DIN 60001	PES low-wick		
Yarn	DIN 53830	1100	dtex	
Weave		L 1/1		
Type of coating		PVC		
Total Weight	DIN 53352	650	g/m²	
Tensile Strength	DIN 53354	2800 / 2700	warp/weft N/50mm	
Tear Strength	DIN 53363	300 / 300	warp/weft N	
Adhesion	Complan-Richtlinien	20	N/cm	
Cold resistance	DIN 53361	-30	°C	
Heat resistance	Complan-Richtlinien	+70	°C	
Light-fastness	DIN 54004	>6	Note	
Crack-resistance	DIN 53359A	no cracks	100.00	
Flame Retardency	DIN 4102 B1, California Title 19 (USA), NFP 92507 M2, BS 7837.			
Finish	PVDF-laquer on top side*, inner side 2xAcrylic, protected against microbial and fungal attack, UV protected.			
Remarks	*Weldable without grinding and with common welding equipment.			

These indicated technical data are based on average value. Due to production procedures slight deviations can occur. All technical data are in accordance with the present standard of knowledge and give product information without legal binding. All data apply to new products.

		Fabric Architectural Umbrellas		Mak/ax Australia	
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# Specification for Paint System



#### **TECHNICAL INFORMATION**

TRIPLEX<sup>™</sup> Coating System REGISTERED TRADE MARK No. 714236

### The System

- 1. Abrasive blast to Class 3.
- 2. Application of Spray Galvanising in Aluminium & Zinc.
- 3. Double Powder Coat.

#### Details

C

- 1. Abrasive Blasting Class 3 is the cleanest metal achievable and is a world wide recognised standard know as the "white metal" finish.
- 2. Spray Galvanising
  Uses a mixture of Aluminium and Zinc, 50/50 by volume, effectively giving a zincalume finish.
  Aluminium 99.5% pure
  Zinc 99.9% pure
  Al/Zn mix bond strength to steel 5600N/cm2
  Interparticle Strength 20300 N/cm2
- 3. Powder Coat Finish (Polyester) 2 coats of Orica Pearl White gloss, No. 959-50059

		Paint System Architectural Umbrellas		Mak/ax Australia
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# Specifications for Umbrella Design & Components

## **TECHNICAL INFORMATION**

#### Design

The umbrellas have been designed in accordance with the principles of structural mechanics to resist loading in accordance with the Building Code of Australia and the relevant Australian Standards listed below: Structural Design Actions AS/NZS 1170.0 - General Principles. AS/NZS 1170.1 - Permanent, Imposed and other Actions. AS/NZS 1170.2 - Wind Actions. AS 4100 - Steel Structures. AS 3600 - Concrete Structures. AS1170.4 - Earthquake Loads

The Centra/Leva umbrella structure is engineered to withstand wind-speeds of up to 120kph (ie: 33 metres per second) and Porta umbrella structure to 36kph (ie: 10 metres per second). Please note that weather bureau reports will not take into account your site's local topography (ie: the affects of the surrounding land formation and adjacent structures). Local topographical affects can cause an overall net increase in wind speed due to funneling, as well as change the angle of attack of the wind onto the structure. In other words, wind gusts due to variations in local topography may cause wind-speeds in excess of those reported by the local weather bureau. It is for this reason that the structures must be closed and tied before **reported** wind speeds reach gusts of 100km/h (60mph).

#### Standards for Steelwork & Workmanship

- The following Australian Standard Codes apply to materials and workmanship: AS 1163 - Welded and seamless steel hollow sections for general structural purposes. AS 3679 - Grade 250, Hot rolled structural steel sections. AS 3578 - Structural steels, ordinary weldable grades. AS 1554/SP - S.A.A. Structural steel welding code. AS 1796 - Certification of welders & welding supervisors. AS 1650 - Hot-dipped galvanised coatings on ferrous articles. AS 1595 - Cold rolled steel strip. AS 1397 - Galvanised steel strip.
- AS 1450 Steel tubes for mechanical purposes.

#### Components

The tensile membrane is fabricated from UV-stabilised, architectural-grade PVDF-coated white polyester fabric. The finish is low maintenance, pollution resistant and rot free.

The structure employs galvanised tubular steel components, complying with the above codes, finished with Triplex white polyester powder coating system.

Bolts, nuts and washers, wire rope cables, rigging screws and shackles are stainless steel Gr.304/Gr.316

Pole sleeve is stainless steel Gr. 316

Top hat is aluminium with white polyester powder coat.

Arm end plugs are UV resistant Nylon 6 MO (extruded), colour black. (Polyamide 6 + molybdenum disulfide)

Membrane top plate is weatherproof PVC Integral skin-foam

		Design and Components Architectural Umbrellas		Mak/ax stralia
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# **WARRANTY - Leva Series**

The Model Leva is warranted by MakMax Australia ABN 91 126 389 393 (herein called the manufacturer), for a period of twelve (12) months from the date of purchase within the following terms:

(a) The umbrellas are warranted against all manufacturing defects.

(b) The umbrellas are warranted against all material defects, provided the umbrellas are installed, maintained and cleaned in accordance with the installation instructions.

1. This warranty does not cover any service consequent upon the following:

- Accident, alterations, misuse, fire, floods, civil unrest, acts of God, Willful, or malicious damage.

- Damage caused by onsite neglect.

- Damage caused during installation or delivery to site.

- Wind stress damage if the umbrellas are left open in high winds.

The umbrellas must be closed and tied before wind speeds reach gusts of 100km/h (60mph). Refer to note on sheet Specification - Umbrella Design.

- Damage from snow loading on the canopy if the umbrellas are left open during snowfall. The umbrella must be closed and tied before and during snowfall.

- Damage resulting from incorrect installation or installation not in accordance with manufacturer's specifications.

2. This warranty does not cover footings and slabs and fixing to footings and slabs.

3. All replacement or repair to umbrellas will take place at the manufacturer's Brisbane plant. All costs of freight will be borne by the claimant. The manufacturer will pay the costs of repairing or replacing all parts the manufacturer finds defective.

4. The manufacturer reserves the right to determine whether or not the fault is faulty workmanship or material or that any part is defective.5. Nothing in this warranty, however, shall be construed as affecting any rights you may have under the Trade Practices Act or any other Commonwealth or State Legislation which gives you rights which cannot be modified or excluded by agreement.

## MAINTENANCE AND CLEANING RECORD FOR WARRANTY PERIOD

Period	Due Date	Required Activity	Date Serviced	Signature
At Installation		Inspect & clean fabric membrane.		
3 months after install		Inspect and clean stainless steel cables and fittings		
6 months after install		Inspect and clean powder coated		
9 months after install		steel frame. Ensure cables are tensioned		
12 months after install		correctly.		

To ensure that the umbrella performs safely, remains attractive and lasts as long as possible, the above maintenance and cleaning activities should be carried out every three (3) months.

Specific Inspections should be carried out immediately after an unusual or exceptional event, which would include extreme weather conditions or heavy impact of any kind on the umbrella.

Refer to the 'Maintenance and Cleaning Recommendations' Technical Manual sheet or the 'Owners Manual' pages for the maintenance and cleaning activities and for the procedure for tensioning the cables.

Owner's Record - Keep the invoice with this warranty.

Model No. ...../...... Date of purchase ....../....../.......

#### MakMax Australia

A.B.N. 91 126 389 393

#### AUSTRALIAN HEAD OFFICE:

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Leva Series Warranty Architectural Umbrellas





Assumed soil conditions: Pad - bearing capacity 100kPa Pier - cu=50kPa (stiff clay)

Minimum 60mm cover to all reinforcement Concrete grade to be N25 20mm aggregate size Slump 65mm

#### Anchor bolt location tolerances per

Australian Standard AS 4100-1990

- 3mm for anchor bolt centres
- within an anchor bolt group.
- 6mm for adjacent anchor bolt group centres.
- Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.
- 6mm from anchor bolt group centre to column line centre.



FD-LR53-05.10 in

Architectural Umbrellas

Mak

LEVA RECTANGULAR 5.3m - LR53 Wind Rating: 33m/sec (120km/h) Rated when umbrella is fully erected. Umbrella weight: 115kg Boom weight: 135kg

Overall dimensions represent clearance dimensions for the complete umbrella. Membrane dimensions differ, depending on variations in tensioning and fabrication. All dimensions are nominal and have a tolerance of +/- 50mm. Dimensions are in millimetres.





Dimensions are in millimetres. Figured dimensions take precedence. Do not scale. © Taiyo Membrane Corporation. This drawing must not be copied, retained or used without permission

Elevation

1:100 AT A4

3980

2250

MakMax Australia/Taiyo Membrane Corporation Eng

Engineering Framing

EF-LR53-05.10 www.makmax.com.au



Assumed soil conditions: Pad - bearing capacity 100kPa Pier - cu=50kPa (stiff clay)

Minimum 60mm cover to all reinforcement Concrete grade to be N25 20mm aggregate size Slump 65mm

Anchor bolt location tolerances per Australian Standard AS 4100-1990

- 3mm for anchor bolt centres within an anchor bolt group.
- 6mm for adjacent anchor bolt group centres.
- Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.
- 6mm from anchor bolt group centre to column line centre.



H.D. Bolt Layout Plan Not to scale

		Leva Model LS27 Architectural Umbrellas		Mak/ax Australia
Dimensions are in millimetres. Figured dimensions take precedence. Do not scale.	MakMax Australia	Footing Detail	FD-LS27-05.10	www.makmax.com.au info@makmax.com.au



Assumed soil conditions: Pad - bearing capacity 100kPa Pier - cu=50kPa (stiff clav)

Minimum 60mm cover to all reinforcement Concrete grade to be N25 20mm aggregate size Slump 65mm

Anchor bolt location tolerances per Australian Standard AS 4100-1990

- 3mm for anchor bolt centres within an anchor bolt group.
- 6mm for adjacent anchor bolt group centres.
- Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.
- 6mm from anchor bolt group centre to column line centre.



H.D. Bolt Layout Plan Not to scale

Dimensions are in millimetres. Figured dimensions take precedence. Do not scale.	
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Mak

LEVA SQUARE 3.2m - LS32 Wind Rating: 33m/sec (120km/h) Rated when umbrella is fully erected. Umbrella weight: 69kg Boom weight: 106kg

Overall dimensions represent clearance dimensions for the complete umbrella. Membrane dimensions differ, depending on variations in tensioning and fabrication. All dimensions are nominal and have a tolerance of +/- 50mm. Dimensions are in millimetres.









Assumed soil conditions Pad - bearing capacity 100kPa Pier - cu=50kPa (stiff clav)

Minimum 60mm cover to all reinforcement Concrete grade to be N25 20mm aggregate size Slump 65mm

Anchor bolt location tolerances per Australian Standard AS 4100-1990

- 3mm for anchor bolt centres within an anchor bolt group.
- 6mm for adjacent anchor bolt group centres.
- Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.

1863

1863

3725 overall

- 6mm from anchor bolt group centre to column line centre.

1900

	Leva Model LS38 Architectural Umbrellas	Mak/ax Australia
MakMax Australia	Footing Detail FD-LS38-05.10	www.makmax.com.au info@makmax.com.au



Assumed soil conditions: Pad - bearing capacity 100kPa Pier - cu=50kPa (stiff clay)

Minimum 60mm cover to all reinforcement Concrete grade to be N25 20mm aggregate size Slump 65mm

Anchor bolt location tolerances per

Australian Standard AS 4100-1990 - 3mm for anchor bolt centres

within an anchor bolt group.

- 6mm for adjacent anchor bolt group centres.
- Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.

- 6mm from anchor bolt group centre to column line centre.



Leva Model LS50

		Architectural Umbrellas	
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Mak/





Side Elevation

2400 clear

270

Plan

1:100 at A4

1:100 at A4

MakMax Australia/Taiyo Membrane Corporation

**Engineering Framing** 

Architectural Umbrellas

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Assumed soil conditions: Pad - bearing capacity 100kPa Pier - cu=50kPa (stiff clay)

Minimum 60mm cover to all reinforcement Concrete grade to be N25 20mm aggregate size Slump 65mm

Anchor bolt location tolerances per

Australian Standard AS 4100-1990

- 3mm for anchor bolt centres within an anchor bolt group.
- 6mm for adjacent anchor bolt group centres.
- Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.
- 6mm from anchor bolt group centre to column line centre.



Architectural Umbrellas



MakHa



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