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THE AR 400 ALUMINIUM ROLLER SHUTTER

Aluminium roller shutters were developed in Germany over fifty years ago, and derived from a timber slat woven together with string. The first aluminium slat was a single skin roll formed section that was fitted together using a hinge like shape. There have been many developments and many shapes produced from that early design. The slat we use is a double walled cavity, curved profile with a PU foam injected into it during the forming process. Although derived from the early timber slat the AR400 series slat represents many technological advantages, and forms the basis for our modern roller shutter.

Technical Specifications.

- **Curtain Weight:** 4.0 kg/m² (AR400 Series).
- **Size Range Width:** 300mm to 3600mm. (Single Span)
- **Size Range Height:** 300mm to 3000mm. (Standard Range)
- **Maximum Size:** 8.0 m²
- **Control Options:** Manual Strap, Manual Winder, ODS 12v and 240v Motorised controls.
- **Box Sizes Available:** 150mm, 165mm, 180mm, 205mm. (BC 45 Range)
- **Materials Used:** 90% Aluminium with some Plastics, Rubber and Spring Steels.
- **Colour Range:** Seven standard box colours and Eleven standard slat colours offer multiple combinations.
- **Installation Options:** Virtually unlimited options available.

Functional Properties.

Security: Australia's largest home insurer the NRMA reports that 55% of domestic home break-ins are through unprotected windows. The roller shutter can offer the first line of defence in this situation and has the major advantage of being a visual deterrent. The roller shutters unique operation and locking device also offer a physical barrier against forced intrusion.

Thermal Insulation: The slat is rolled to form a hollow casing into which a PU foam is injected, creating an 8.7mm (AR400 series) thick wall of insulation, similar in style to a cool room. There is that added insulating qualities of the air gap between the shutter and the window. These functions could provide up to *90% reduction in thermal transfer through the covered window.

Noise Insulation: The insulating qualities of the roller shutter have the additional function of dampening the intrusion of unwanted noise by up to *50%. By creating a barrier in front of the window, the noise flow, which is transferred by vibrations through the air is reduced.

Light Control: Dependant on the type of installation and building construction, a roller shutter can offer up to *100% control of the effects of harmful ultra violet and infra-red rays. The shutter has the added function of perforations along the slat hinge that can be adjusted to diffuse the suns rays, while allowing light into the room.

Storm Protection: The roller shutter will offer a physical barrier against driving rain, high winds and flying debris. Roller shutters are especially effective against hail, protecting the glass from breaking and possible personal injury.

Fire Protection: The heat from a bush fire can easily shatter the glass in a window and allow the entry of radiant heat and ashes to the home. In this case, the roller shutter will offer an effective barrier against radiating heat and airborne ashes.

***Formal Test Results:** Unfortunately, due to the endless variations in building types and installation techniques, it is not possible to offer any official test results on the above mentioned issues. Tests on thermal insulation, noise insulation, wind ratings and fire protection are all carried out in laboratory situations, and it is impossible to simulate the broad range of applications for roller shutters. Therefore the details listed should be used as a guide only and cannot be quoted accurately as actual results.

