



# HDF STORMSHIELD SERIES

***ROBUST - SOLID - SECURE***

## HIGH DENSITY FOAM

Since its inception our Residential Slat has consistently proved to be a high quality, robust and well accepted profile so therein provided the perfect solid platform on which to develop the "Stormshield" profile.

The development & introduction of the High Density Foam (HDF) offers remarkable advantages where there is high wind or high risk. The HDF is injected into the slat profile under controlled conditions during the manufacturing roll-forming process.



## STORMSHIELD SERIES

Stormshield is available in both restrained and non restrained options. Our HDF filled profile combined with restrained guides has been tested successfully to meet with cyclone category 3 regulations, while the HDF unrestrained provides an option with standard materials where extra strength and security is required.

The increase of density in the HDF profile allows the slat inserts to be actually screwed into the foam with two 25mm long screws rather than being stapled or punched as is the normal procedure with standard slats.

The restrained slat inserts are designed to integrate with the guide profile to lock within a central channel that would require considerable force to disengage.

The Restrained Guide has been designed to cope with the added forces that the slat will place on it. The wall thickness and overall engagement has been increased to allow for the restraining insert.



Unrestrained with Extended Guide



Restrained Guide

## COLOUR RANGE

Monument

Woodland Grey

Deep Ocean Blue

Black

Sand

Cream

Grey

White

## CYCLONE TESTING

The HDF Stormshield underwent cyclone tests at the Cyclone Testing Station, James Cook University, Queensland and was approved for a Category 3 Cyclone Rating.

The test involves fitting the HDF Stormshield to an air box facility, which then simulates the enormous wind loads that can be encountered under tropical cyclone conditions.

There are two appropriate Australian Standards that have been satisfied:

- Australian Standard AS / NZS 1170.2 - 2002 Structural Design Action Part 2:

Wind Actions was used to determine the cyclonic wind loading for roller shutters fitted to a suburban house with an average roof height of 5m located in a sheltered Terrain Category 3 Region C cyclonic location. The design wind speed is calculated to be 47 metres per second (169.2 kl/h).

- The Australian Standard AS 4040.3 -1992 Methods of Testing Sheet Roof and Wall Cladding.

Method 3: Resistance to Wind Pressures for Cyclone Regions was used to an ultimate load pressure of 2.50 kPa, which is needed to fulfil the requirements.

The HDF Stormshield passed cyclic fatigue loads of 10,200 cycles at incremental increases to the final load, supporting the final single cycle pressure of 2.5kPa for 1 minute. The shutter deflection only increase to a nominal distance of 82mm from the standard rest position during the tests.

## FEATURES AND BENEFITS



*Increased Strength & Security*



*Cat 3 Cyclone Rating*



*Premium Insulation*



*Light Control*



*Available in Restrained and Unrestrained*



*Minimal Flex*



*Ideal for closing in outdoor areas*

