DENNISON DOORS Limited

automatic doors

- sliding doors
- revolving doors
- swing doors
- air curtains
- 'operator only' systems

shutters

- roller shutters
- sliding shutters
- sectional doors
- concertina doors
- fire rated shutters

steel doors

- security doors
- vandal resistant doors
- fire exit doors
- sub-station doors
- certified doors

security grilles

- bar grilles
- window grilles
- window bars
- commercial property
- domestic property

barriers and gates

- swing gates
- sliding gates
- barriers
- automatic bollards
- parking sytems

access control

- code locks
- card readers
- door intercom
- cards and tags
- system integration

pvc doors

- rapid roll doors
- high-speed doors
- pvc strip curtains
- grp doors
- polycarbonate doors

security cage

- modular solutions
- steel mesh storage
- multiple locking options
- perimeter protection
- steel panel options

services

- planned maintenance
- service contracts
- 24*7*365 call-out
- rapid response times
- BS7036 compliant

Protecting properties
since 1982

EXCLUSIVE TO SECEUROGLIDE ROLLER GARAGE DOORS

Dennison·Services

THERMALsafe
Sectional Overhead Doors

DHF Door & Hardware Federation

Dennison·Services

36 Aston Road, Waterlooville, Hampshire. PO7 7XF
Telephone: 02392 266 166 · Email: service@dennisonservices.com · www.dennisonservices.com

THERMALsafe® Sectional Overhead Doors

Overview

The THERMALsafe® door features the best values in terms of air permeability classification - class 4, the first to date on the sectional door market, and superior U value - thermal performance of an average, 22% better than a standard sectional door.

There is little doubt that there is an increasing demand for improved thermal performance in a sectional door. In meeting this challenge effectively, one must address the thermal conductivity performance (U value) of the door in tandem with the air permeability of the door system. Merely addressing one of these is no longer enough.

Over the course of several years, Dennison Doors has developed its THERMALsafe® foam technology which offers extremely low thermal conductivity. This development meets one critical point of the THERMALsafe® door.

However, there is often confusion over true U value performance of an insulated panel and in many cases the panel joints and other areas of cold bridging are not dealt with properly, or even not included in published U values. This is to say, nothing of air leakage through the side seals, panel joints or top and bottom of the door.
With its THERMALsafe® door, Dennison Doors has met the challenge on all these aspects through:

THERMALsafe® foam provides the best performance in terms of thermal insulation

THERMALsafe® panel joints ensure a proper Thermal break in the joint, eliminating cold bridges, and an enhanced air leakage seal performance

Patented THERMALsafe® side seal offering improved Thermal performance and air leakage reduction

THERMALsafe® endcaps to ensure no cold bridging through the sides of the door

THERMALsafe® **top and bottom profile** to ensure no cold bridging through the top and bottom of the door

The result? A U value for the complete door that is typically, 22% better than a standard sectional door and a class 4 air permeability value, the first to date on the sectional door market.

Dennison•Services

What is the air-permeability of a sectional door?

Air-permeability is simply the amount of airflow, which can pass through the door leaf, in principle through the panel joints, the sides, the top and bottom of the door. To truly improve the thermal performance of a sectional door, one must take into account both: the U value of the door as a whole, and its air-permeability performance.

Dennison Doors has achieved this in its new product:

The Thermal safe door.

o Thermalsafe panel (40 mm) achieving the best values in terms of energy efficiency (Uvalue) thanks to:

o Thermal safe foam technology

o The panel joints design (duo-shell panel concept with a double sealing system, eliminating cold bridging)

o A unique range of Thermal safe.

o A unique range of Thermal safe needs components

What is the U Value of a sectional door?

"U" Value is the coefficient of transmission i.e., the transmission of heat through the materials, which compose the building's "envelope," or outer shell.

The U value of a material is a measure of the amount of heat that passes through a surface area of 1 m2 for each degree of temperature difference between the inside and outside. "U" Value is the coefficient of transmission i.e., the transmission of function of the thickness of the material and the materials' thermal conductivity.

Regarding sectional doors, a common misconception is to take U value of the panel (or even just the U value of the foam) and to apply it to the whole door.

To properly calculate the true U value of a sectional door, one needs to take into account not only the U value of a sectional door panel (which differs from one manufacturer to another) but also to include the panel joints, sides seals and any other places that the heat can be conducted through on an assembled door.

Benefits

Improve both thermal and air permeability aspects

o Versus 60mm panels where thermal bridges remain and no improvement is done on air permeability reduction.

o Do not generate double stock issues

o Versus 60mm panels

o Versus Need to stock an additional Hardware range

o Do not generate accessories issues

o Versus 60mm panels and hardware where no handles, windows, lock, pass-door, full vision panel, are available to customize your door.

o Without major door cost increase and, most importantly, without doubling the stock of panels and hardware, the new thermal safe

Up to **22%** Better Themal Insulation

Up to **300%** Better Air Permability

Air Permeability

Improve the classification (EN12426) of Dennison Doors Sectional Overhead Doors from class 2 toclass 4 (From 12 to 3m3/m2*h of air losses through the installed door)