

DUGGAN PROFILES & STEEL SERVICE CENTRE Ltd.

NONDRIP[™] ROOFING: THE SOLUTION TO CONTROL CONDENSATION

In non-insulated metal buildings, cold air outside + warm air and humidity inside create condensation on the under side of the steel sheeting resulting in droplets of water dripping down.

NonDrip^m is a nonwoven fibre material specially designed to control condensation and prevent dripping water in noninsulated metal buildings, based on ventilation.

The NonDrip[™] membrane can control condensation in an environment where the condensation appears cyclically. The fibre - microsphere structure is capable of absorbing over 900 grams of condensation water per square meter (Depending on the slope of the roof).

In order to work properly, the NonDrip^m Membrane needs to get dry in between cycles. For that reason adequate ventilation inside a building is necessary.

NonDrip^m can now be applied on our range of 14/3 corrugated or 1000/32 box profile coated steel.



Tel.: +353-56-7722485 Fax: +353-56-7763411 E-mail: salesdp@steel.ie





DUGGAN PROFILES & STEEL SERVICE CENTRE Ltd. Dublin Road. Kilkenny - Ireland

NonDrip[™] Membrane Technical Properties



Description:

NonDrip^m is constituted of polyester fibres (bound with a hot melt adhesive) which absorbs and stores the condensation.

When the temperature of a metal roof drops below the dew point, the NonDrip^m will absorb and store the condensed water vapour. The absorbed water will evaporate again to the ambient air under appropriate temperature and ventilation conditions.



Adequate ventilation in an uninsulated building with air inflow at the sides and air outflow on the top of the roof.



Inadequate ventilation in an uninsulated building with air inflow at the sides and no air outflow possibilities. The result is dripping from the roof when the NonDrip is saturated

Ventilation is critical to avoid the build-up of moisture within the building where the NonDrip^m is applied. Without proper ventilation the risk occurs of droplet formation.

NonDrip[™] does not modify or damage any existing protection against corrosion of the roof.

Absorption capacity:

Tests carried out on the NonDrip^m coating indicated a very high absorption capacity.

Water absorbency on the steel roof depends on the slope of the roof in combination with the direction of the fibres.

- 1. Flat roof: Absorption > 900gr/m²
- 2. Roof slope $< 10^{\circ}$: Absorption $> 550 \text{gr/m}^2$
- 3. Roof slope > 10° : Absorption < 550gr/m^2
- 4. Vertical (Wall cladding): Absorption \pm 300gr/m²

Fire behaviour:

NonDrip[™] was tested on its reaction to fire according to EN 11925-2:2002 / EN 13823:2002 and classified according to EN 13501-1:2002.

The results showed that there was no reaction of the material at an attempt to ignite the surface. With a side ignition and a flame growing at a height of max 3cms, the burning stopped after max 2 seconds.

NonDrip[™] fire behaviour is classified as B, no flashover possible. The classification in relation to smoke production is s1, the lowest smoke production level. The classification in relation to flaming droplets / particles is d0, no dripping.

The full fire classification is B-s1, d0, the best classification possible for this type of product.

Fungus Growth:

NonDrip[™] does not support fungus growth.

Noise absorption:

NonDrip[™] absorbs some of the noise due to the external weather conditions, but more noticeably, it reduces the interior noise by dampening the sound reverberation on the steel roof.

Storage conditions:

NonDrip^m coated sheets must be stored flat under conditions that protect them from humidity (e.g. Suitably wrapped under a weather proof sheet or in a covered warehouse).

Installation precautions:

To prevent damage to the NonDrip^m coating, avoid rubbing the sheets together and / or against the roof structure.

If the sheets are to be fixed on a timber structure, a strip of roofing felt should be placed between the sheet and the structure.

Ensure that the bottom of the sheet is capable of draining condensed water into a gutter. The metal sheet that is draining condensed water into the gutter should be installed in such a way that the NonDrip^m is clearly overhanging into the gutter.

Application conditions and restrictions:

To ensure proper functioning, NonDrip^m should not be used in climate zones or in buildings where relative humidity approaches saturation for extended periods.

In certain environments in particular, the function of NonDrip^m can be affected, e.g.: In buildings with humidity production, buildings with poor ventilation, buildings with presence of corrosive gasses or rooms with a dusty atmosphere, etc.

It is the designer/specifier's responsibility to ensure overall compliance with the Building Regulations.



DUGGAN PROFILES & STEEL SERVICE CENTRE Ltd.

NONDRIP[™] ROOFING: THE SOLUTION TO CONTROL CONDENSATION



FACTORY FINISHED END LAPS

Grant Accepted sheeting supplied with a 15-Year guarantee will not be affected when NonDrip^m is applied. NonDrip^m also carries a 15-Year guarantee when used in compliance with the manufacturer's instructions.

The Department of Agriculture & Food has confirmed that NonDrip[™] may be applied to our range of accepted cladding sheets for use in grant-aided buildings.



to prevent absorption of rain water by capillarity).



Clearlights are not recommended in a roof with NonDrip[™].





DUGGAN PROFILES & STEEL SERVICE CENTRE Ltd.

Dublin Road, Kilkenny - Ireland Tel.: +353-56-7722485 Fax: +353-56-7763411 E-mail: salesdp@steel.ie www.steel.ie



DPSSC April 2009 © copyright Duggan Steel Group Ltd. 2009



Please Note: All reasonable care has been taken in the compilation of the information contained within this publication, but Duggan Steel Group Ltd. and its related companies do not accept responsibility for errors or for information which is found to be misleading. Suggestions for, or descriptions of the end use or application of products or methods of working are for information only and Duggan Steel Group Ltd. and its related companies accept no liability in respect thereof. It is the customer's responsibility to ensure that the product is fit for its intended purpose and that the actual conditions of use are suitable. It is also the customer's responsibility to ensure with the current Health & Safety and Building Regulations. Dimensions are for Illustration purposes only and subject to change. Duggan Steel Group pursues a policy of continuous product development and reserves the right to amend specifications without prior notice. Please refer to our website www.steel.ie for the most up to date information.