

Presentation

A top class underlay

The 'CaTop UD 300' underlay strip from CaPlast GmbH is an energy-efficient, high-tech textile with diffusion to the exterior. It fulfils all of the technical requirements of contemporary roof construction. This is especially clear from the outstanding technical data relating to all functional areas.

With the 'CaTop UD 300' premium product, the medium sized company from Nordkirchen (near Münster) has provisionally reached a technological advance in the development of innovative underlay strips made from polyurethane with diffusion to the exterior. Even before the innovative underlay strip was ready for production, CaPlast succeeded in achieving a technological breakthrough with the development of an aromatic polyurethane which forms the basis material for the 'CaTop DU 300'. Already excellent for roof construction, the properties of polyurethane such as the high load capacity of the surface, resistance to oil and chemicals and the high level of resistance to ultra violet light and extremes of temperature, were examined in further detail and itemised as a result of this research and development work. Especially in the field of weldability: With the aid of the solvent THF, the aromatic polyurethane can be welded both hot, as well as cold. This makes processing easier and much more flexible.

Combined in a 3 layer strip, the linkage of these key product properties (such as

impermeability in driving rain, water impermeability (>10 m water column), diffusion openness ($sd \leq 0.18$ m) and very good resistance to tearing / nail tear out (approx. 350N/5cm)) represents a great leap forwards in terms of efficiency. One product is enough to satisfy various structural engineering requirements. The 'CaTop UD 300' underlay strip consists of two monolithic, durable polyurethane functional layers and a centrally arranged non-woven layer. In connection with this, the test-confirmed level of impermeability in driving rain was especially impressive. In the three hour test, all levels of driving rain were simulated and at the same time, the underlay strip was tested for water tightness at various points. The outcome was clear: In the case of a soft underlay (insulation), the underlay strip allowed 0.04 % water passage (max.) and in the case of a hard underlay (boarding) this figure was 0.12 %. In addition to this, 'CaTop UD 300' can be classed at the highest possible level 'W1' in the category 'resistance to water passage' tested in accordance with DIN EN 1928. It was especially the high level of impermeability at the welded seams which was found to be satisfactory. This is a sign that the technology employed by CaPlast has been fully thought through right up to the fault-prone details.

With an sd value of 0.18 m, 'CaTop DU 300' also possess an outstanding value in the field of 'water vapour permeability' and as such, it also exhibits the characteristic



of being 'open to diffusion'. This is a big plus, especially in the restoration of old buildings or in the construction of new buildings: If it is damp in the room, the underlay strip stores water molecules in the surface. In return, it releases moisture into the ambient air if this is too dry. The combination of modern, pleasant and energy-efficient living is enabled through cleverly devised technology. In this specialised sector of the construction industry, continuous innovation is the key element that drives CaPlast GmbH.

Apart from the 'windproof, rainproof and waterproof' product characteristics that have already been mentioned, the underlay strip can also be welded hot or cold due to the material properties of the output product 'aromatic polyurethane'. An enormous advantage for the roof layer: As a result of its extreme-

ly quick reaction time for welding and the flexibility of the strip, installation is made significantly easier and this increases efficiency when working on the roof. With a low weight of 310 g/m², it also is very easy to handle the 'E' classed strip (building material class). On account of this technical data, 'CaTop DU 300' is especially suited to flat-tilted roofs where the incline of standard roof is not met. Together with the CaVap vapour barrier system and other accessories such as weld strips, sleeves and harmonised liquid plastic linings for connections, CaPlast offers a system solution which is a match for nearly all challenges in the field of modern roofing.

Further information about CaPlast as well as the various underlay strips can be found online: www.caplast.de/produkte/dachbau