

Editorial

At Rubberfuse, the major commitment has always been to promote environmentally friendly systems. This is why, since the very first days, we did focus on the development and promotion of the TPO/FPA Sintofoil membrane. In a constant search for "getting greener", we also keep focusing on improving the ecological aspect of the Rubberfuse accessories product line. A Solvent-free (FB-SF) version has replaced the original FB Adhesive and a thermal shut fixing type, designed to improve the insulation performance is part of our fixings offer.

With the rising interest in renewable energy sources, it was only obvious for us to be involved in the solar roof technology. A cooperation contract has been finalised with Biohaus, now part of the Centrosolar Group, a top level player with a proven experience in the photovoltaic field. Several "solar roofs" using the TF (Thin Film) Membrane have already been installed in Germany, the first project did start in France (see picture), where more are to follow and some are expected to start soon in Spain.

More than ever, Rubberfuse comforts its leading position as your partner for environmentally friendly solutions

M. Aughuet.



More solar roofs in Germany

Several Rubberfuse "solar roofs" have now been installed in Germany. The first job, a show case, was a fully adhered system with FB membrane, but actually most of the installations use the mechanically attached roofing concept.

Biosol TF (Thin Film) Membrane is the selected name for the panel made of thin film photovoltaic modules laminated to a TPO/FPA membrane. This panel combines the reliability of a PP-based TPO sheet with the newest generation of the thin film photovoltaic technology. It has been developed together with Biohaus, a company with 20 years of experience in the integration of amorphous modules. Biohaus is now part of Centrosolar AG, a recognised specialist for demanding PV integrated concepts.

A recent reference is the roof covering the Baden Import warehouse, located in Scheessel. This 8.000 m² roof includes 220 ea TF membranes and is designed to generate a total of 59,84 kWp. The works (actually a renovation) have been carried out by Frank Bolzenius, the first German applicator who has been awarded the Rubberfuse Authorised Applicator status. The "non-solar" portion uses Sintofoil ST membrane, mechanically secured to the substrate.



Solar systems on show in Slovenia

The demand for solar systems grows all over Europe and Slovenia is a country known to be in the forefront when it comes to new technology. The ZEO 2008 exhibition, which took place early this month in Brdo Pri Kranju, did focus on passive and low energy buildings. Relating products and systems were introduced to architects, environment specialists, contractors and owners. Ravago Slovenija did not miss the opportunity to have a booth and introduce the TF membrane in their country.



Reroofing showcase

Roofing does not always mean simply laying sheets on a large area and completing a few details. And when it comes to reroofing, it may become even more complicated. A job recently completed by Vanderlinden, a Rubberfuse Authorised Applicator in Belgium, is a nice demonstration of how to properly handle a challenging situation.

The project was to renew the roof covering of several modular office units. After few years in service, the existing bituminous roof had been patched here and there, yet it kept leaking,

which led the owner to decide going for a complete retrofit. The job was not big, but proved to be quite demanding in terms of workmanship, due to numerous expansion joints and peculiar water outlets. The first step was to restore the slope, using tapered PIR boards. A Fleece-Backed Sintofoil membrane was then mechanically secured at the perimeter (edges and expansion joints) and fully adhered. Sintofoil ST membrane was used to complete the expansion joints and the outlets, as per Rubberfuse specifications.



A big reference in Qatar

With an average 6.5% annual real GDP growth over the past five years, Qatar's economy is termed by experts as a world top performer. Established in 2005, the Barwa Real Estate Company is now the largest publicly listed property developer in the country. One of their current project is the Barwa Housing Programme. Built in two separate plots, this fast track scheme is designed to house a total of 1.984 high quality apartments.

The roofing contract for the first phase of this huge project has been awarded to Rubberfuse. The system includes 85.000m² of 1.2mm Sintofoil ST grey membrane and extruded polystyrene insulation mechanically secured on structural concrete, using Rubberfuse R-75 (insulation) and M-45 (membrane) plates coupled to HD (Heavy Duty) 6.1mm fasteners. In order to meet the requirements in terms of aesthetics, 21.500lm of edge profiles made of grey Rubberfuse Sheet Laminated Metal were also used.



New packaging for Flashing/Substrate Adhesive

The packaging of Flashing/Substrate Adhesive has been changed. 12 pails (240 kg) are now put on a pallet. This allows to load one pallet on a truck without the requirements of ADR regulation, since the pallet's weight does not exceed 300kg. A "normal" truck can now be loaded with membranes and accessories, including one pallet of Flashing/Substrate Adhesive.



Certification program

DIN program in Germany

The ST and FB Sintofoil membranes 2.0mm thick have been successfully tested at the Süddeutsches Kunststoff-Zentrum laboratory in Würzburg. The membranes are compliant to the DIN norm V 20000-201:2006-11 (table I4 and I7).



Fire class "E" for Sintofoil membranes

A new version of the ST and RG Sintofoil membranes are subject to "E" rating according to the EN 13501-1:2007 classification standard. The certificate has been issued on 21.04.08 by LAPI (Laboratorio Prevenzione Incendi S.p.A.), the European Notified Body n°0987, under the reference ACL/472/08/CPD/13956. The certificate is valid until 20.04.2013.



Broof (t1) testing on Sintofoil membranes

The 1.2mm and 1.5mm thick ST Sintofoil membranes have successfully passed the test according to EN-13501-5 norm. The tests were carried out at the WarringtonFireGent laboratory in Belgium. The detailed reports are available upon request.

A key principle of Imper Italia's strategy is to offer a product line that meets the local industry standards and technical requirements. To date, Approval and/or Testing Certification has been obtained from the Authorities in the following countries (listed in alphabetical order): Belgium (UBAtc), Bulgaria (HNCN), Croatia (IGH), Czech Republic (TZUS), Europe (UEAtc), Germany (SKZ), France (CSTB and Qualiconsult), Holland (BDA-Intron), Hungary (EMI), Italy (ITC), Russia (GOST), Slovenia (ZAG), United Kingdom (BBA) and USA (FM).

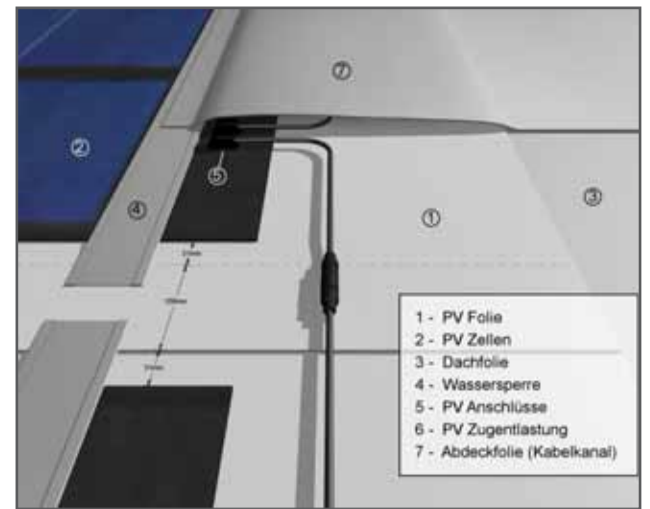
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TF Membrane leaflet

A 4-page leaflet dedicated to the solar Biosol TF (Thin Film) Membrane has been published. The document provides technical information on this product, which is the result of the cooperation between Centrosolar and Rubberfuse.

The TF Membrane is a 5.90m x 1.05m panel made of a 2.0mm thick TPO/FPA base and 2 units of amorphous photovoltaic laminates, generating either 272 Wp (43.9 Wp/m²) or 288 Wp (46.5 Wp/m²), according to the PV film version. The panel includes potted terminal housing assembly with output cables and quick connect terminals. The TPO base is available in ST (standard) and FB (Fleece-Backed) version.

The TF Membrane meets the IEC/EN 61646 requirements. It is sold via the Centrosolar AG network and installed by Rubberfuse Authorised Applicators.



On site durability evaluation

The results of the survey carried out by the Milan Politecnico Institute on three exposed (mechanically attached) roofing systems using ST Sintofoil membrane, installed 5, 10 and 12 years before sample collection in Spain and France, have been part of a paper presented by Dott. Croce and Dott. Fiori at the May 2008 International Conference on Durability of Building Materials and Components in Istanbul.

The conclusions of the paper are clear:

"in all inspections, the covers showed, on the flat areas section and in the details, an absence of visible decay. The favourable overall assessment of the cover in place was confirmed by laboratory tests performed on the samples taken. Measurements made showed a similar behaviour in the 3 various geographical sites. Membranes had very different exposures to sun radiation, both in terms of intensity and duration. Sampling showed the perfect weldability and therefore the full possibility to repair membranes, even after years of operating exposure".

A copy of the paper is available upon request.



Fixings: Helmond plant

All Rubberfuse plates (standard and thermal shut) are now made in a new plant, conveniently located in Helmond (Holland), near our Flémalle warehouse.

This means good news for our customers: reduced costs and shorter delivery time. The manufacturing unit is certified by Loyd's for ISO-9001-2001 Quality Management System. These items are part of the ETA certificate issued for Rubberfuse mechanically attached systems.



Rubberfuse covers Daimler in Spain

Acieroid have started the first phase of the roofing works of the re-conversion of the 55.000m² Daimler Chrysler plant located in the Madrid outskirts. The membrane used on this project is 1.2mm thick Sintofoil ST/FR-E, the newly introduced Rubberfuse membrane which meets the E fire classification according to the EN 13501-1:2007 European standard.

The membrane is mechanically secured using standard Rubberfuse fixings. The selected colour is white, which offers the optimal reflectivity.