

# W83/RILEM-RMS - Roofing Materials and Systems



**As we have noted on a previous occasion W83 is an exemplary group when it comes to an information flow to the General Secretariat on its activities. Not surprisingly, it always has something newsworthy to report as well.**

**Coordinator Walt Rossiter has sent the following up-date on W83, a Joint Committee with RILEM, which was re-constituted at its meeting in Brussels, Belgium last May.**

The newly-formed CIB W83/RILEM-RMS Joint Committee on Roofing Materials and Systems held its inaugural meeting in Brussels, Belgium on 14 and 15 May 1996. The Chairman ('Coordinator' in CIB terms) is Walter Rossiter, National Institute of Standards and Technology (NIST, USA) and the Secretary is Edward Kane, Firestone Building Products Co. (USA). The Committee is comprised of 31 members from 19 countries. Fifteen members and guests representing nine countries were in attendance at the Brussels meeting.

This Committee is a descendent of the CIB W83/RILEM 120-MRS Joint Committee on Membrane Roofing Systems, which completed its work in 1995. Two reports are available: (1) "Thermal Analysis Testing of Roofing Membrane Materials: Final Report of the Thermal Analysis Task Group", and (2) "International Index of Codes of Practice Related to Membrane Roof Systems".

## **Two-Fold Objectives**

The newly-formed CIB W83/RILEM-RMS Joint Committee has two objectives: (1) to develop a methodology for assessing the condition of in-place (i.e. existing) flexible roofing membranes, and (2) to determine the state-of-the-art with regard to design, application, and maintenance of sustainable membrane roofing systems. To meet these objectives, the Committee has initiated two Task Groups - each of which will conduct activities to meet one objective. Task Group 1 will focus on condition assessment. Task Group 2 will examine issues associated with sustainable roofing, and is entitled "Towards Sustainable Roofing". This title recognises that the concept and practices of sustainable roofing will be evolving over the life of the Committee.

## **Task Group 1**

At the Brussels meeting, the two Task Groups developed plans for performing their work over the next 3 years. Each will issue a report at the completion of its work. Task Group 1 activities will address the following: (1) estimation of the remaining service-life of an existing flexible roofing membrane; (2) decisions on whether an existing membrane should be left alone, repaired, recovered, or replaced; and (3) development of a methodology to assess remaining service-life of an existing membrane, and to assist in making decisions whether it should be left alone, repaired, recovered, or replaced. Procedures for sampling existing membranes will be considered in the methodology. This work is significant in that one of the most important questions regarding an existing flexible roofing membrane is what is its condition, and should it be left alone, repaired, recovered, or replaced. It would be of great use to the roofing community to develop a methodology to determine membrane condition. Such a methodology could make use of international standards as well as recommendations from CIB/RILEM Joint

Committee W83/120-MRS regarding thermal analysis methods, e.g. thermogravimetric analysis (TGA) and dynamic mechanical analysis (DMA) or torsional pendulum analysis (TPA).

## **Task Group 2**

Task Group 2 will examine the state-of-the-art of the practices used throughout the world for constructing, maintaining, and disposing sustainable roofing systems. Included will be a review of the impact of roofing on the world environment including energy consumption, energy savings, and landfill uses. The activity will be limited to flexible membrane roofing systems (often referred to as "waterproofing" in some regions of the world), and their means of attachment and support, and underlying insulation.

In recent years, concerns over protection of the environment during the construction and maintenance of roofing systems have lead to the development of design and application criteria that prevent or limit harm to the environment. Such practices, which also consider the life-cycle costs of the roofing systems, are called sustainable (or, sometimes, environmentally-friendly) roofing. The trend to sustainable roofing is expected to continue to grow in the years ahead. Practices for sustainable roofing may vary from country to country around the world, or even between different regions within a given country. The state-of-the-art of sustainable roofing practices has not been assessed on a worldwide scale.

## **Plans for 1997**

CIB W83/RILEM-RMS plans to hold two meetings in 1997. The annual spring meeting is scheduled for 7 and 8 April in Haifa, Israel at the Technion. The second meeting will take place on 15 and 16 September at NIST in Gaithersburg, MD, USA (outside Washington, DC). The Gaithersburg meeting will occur in conjunction with the 4th International Symposium on Roofing Technology, 17-19 September 1997. Both CIB and RILEM are co-sponsors of the Symposium, and many CIB W83/RILEM-RMS members will present papers. Further details on the Symposium programme will be available in future news reports from CIB W83/RILEM-RMS. For current information on the symposium, check our world wide web site at: <http://ciks.cbt/nist.gov/roofing97>.

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