

June 17, 2014  
Hilton hotel, Tel Aviv

## **Fundamentals of Weathering I**

*Seminar on weathering durability testing techniques*

Speakers:  
Dr. Florian Feil  
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### **Agenda**

- 9:00 – 9:15      **Introduction**
- 9:15 – 10:30    **Part 1: Factors of weather**  
Learn about the influences of weather, i.e. sunlight, temperature and humidity, are described.
- 10:30 – 10:50    **Coffee break**
- 10:50 – 12:00   **Part 2: Outdoor weathering**  
The fundamentals of natural weathering are described. This includes static exposures in different reference climate zones, as well as various accelerated methods for natural weathering.
- 12:00 – 13:00    **Lunch break**
- 13:00 – 14:00   **Part 3: Laboratory weathering**  
In this section different kind of weathering laboratory instruments are described. What is the light source and its spectral power distribution? Which is the right instrument for which application?
- 14:00 – 14:30    **Part 4: Reference materials for weathering tests**  
Standard reference or control materials are recommended for the validation of accelerated test methods and for control of the instrument performance.
- 14:30 – 14:50    **Coffee break**
- 14:50 – 15:30   **Part 5: Acceleration/Intensifying tests**  
Principles are shown on how to accelerate weathering tests and what has to be considered to avoid unrealistic results.
- 15:30 – 16:00    **Discussion**

## Fundamentals of Weathering II

### *Seminar on weathering durability testing techniques*

## Agenda

9:00 – 9:15

### **Summary of day 1**

#### **Part 1: Effects of weather on polymers**

9:15 – 10:40

The effects of primary and secondary weather factors on materials are described. A special focus is given on the influence of light, heat and moisture on materials. How are they measured? How can their impact be estimated?

10:40 – 11:00

### **Coffee break**

11:00 – 12:00

#### **Part 2: Photooxidation and stabilization mechanisms**

In this section the most important chemical degradation pathways are described. What effect does solar radiation have on materials? How can it be controlled or avoided?

12:00 – 13:00

### **Lunch break**

13:00 – 14:00

#### **Part 3: Validating Operation of Laboratory Weathering Instruments.**

Evaluating weathering instrument performance is a common concern. Here we show what to do if an instrument performs out of its specification.

14:00 – 14:45

#### **Part 4: Correlation**

Mathematical/statistical procedures are described on how to compare weathering results from different exposures. This is an important step in the validation of weathering experiments.

14:45 – 15:05

### **Coffee break**

15:05 – 15:50

#### **Part 5: Acceleration**

Technical solutions on how to accelerate weathering experiments are described on day one (FoW I) of this seminar. Here is described what has to be considered to get reliable and significant results from accelerated testing and on how to validate reciprocity.

15:50 – 16:20

#### **Part 6: Methodology to Develop a Weathering Test Program**

A methodology is described on how to develop a test method or a test program for a specific product or application.

16:20 -16:45

### **Final Discussion**