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Introduction to Weathering (W101) Seminar

Wednesday 19th April 2023

8:30 – 8:45am EDT	Registration with Light Breakfast and Refreshments
8:45 – 9:00am	Introductions
9:00 – 10:30am	Part 1: Forces of Weathering <ul style="list-style-type: none">• Sunlight: spectral irradiance and material sensitivity• Heat: temperature and thermal cycling• Water: relative humidity, dew, and rainfall
10:30 – 10:45am	Q&A
10:45 – 11:00am	Coffee Break
11:00 – 12:05pm	Part 2: Outdoor Weathering <ul style="list-style-type: none">• Benchmark outdoor test locations: Florida & Arizona• Natural outdoor weathering testing• Black box, interior automotive material, and behind-glass exposures• Natural sunlight concentrators
12:05 – 12:15pm	Q&A
12:15 – 1:00pm	Lunch/Free Time
1:00 – 2:30pm	Part 3: Accelerated Laboratory Weathering <u>Xenon Arc</u> <ul style="list-style-type: none">• Light delivery: Xenon arc lamps, optical filters, and irradiance control• Environment simulation: black panel, chamber air, humidity, water spray <u>Fluorescent UV Weathering</u> <ul style="list-style-type: none">• Light delivery: fluorescent UV choice of lamps and irradiance control• Environment simulation: black panel, condensation
2:30 – 2:40pm	Q&A
2:40 – 2:50pm	Coffee Break
2:50 – 4:00pm	Part 4: Developing Weathering Testing Programs <ul style="list-style-type: none">• Why Test?• Factors affecting correlation between natural and accelerated weathering• Fluorescent UV and xenon-arc comparison• Weathering test program development• Weathering case studies
4:00 – 4:10pm	Q&A
4:10 – 4:30pm	Summary & Conclusions
4:30pm	Adjourned