Roof Coating Forensics

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- It is and shall remain the policy of the Spray Polyurethane Foam Alliance ("SPFA"), and it is the continuing responsibility of every SPFA member company, SPFA meeting or event participant, as well as SPFA staff and leadership to comply in all respects with federal and state antitrust laws. No activity or discussion at any SPFA meeting or other function may be engaged in for the purpose of bringing about any understanding or agreement among members to (1) raise, lower or stabilize prices; (2) regulate production; (3) allocate markets; (4) encourage boycotts; (5) foster unfair or deceptive trade practices; (6) assist in monopolization; or (7) in any way violate or give the appearance of violating federal or state antitrust laws.
- Any concerns or questions regarding the meaning or applicability of this policy, as well as any concerns regarding activities or discussions at SPFA meetings should be promptly brought to the attention of SPFA's Executive Director and/or its legal counsel.



Case# 1 The Unappealing Peel

- Customer reported peeling coating on a concrete roof
- A sample of the coating was obtained
- A detailed examination of the coating
- A report was generated and sent to the customer with instructions



Silicone Film on Light Table





View Under Microscope





View Under Microscope





Peeling Conclusion

- Roof was coated while concrete was saturated.
- Customer did not perform a moisture scan before coating.
- Solution was to grind off any remaining coating.
- Add a moisture lock primer to the surface.
- ▶ Re-coat the roof according to manufacturer specification.



Case# 2 Burns and the 3rd Degree

- Customer very upset by "burn" marks.
- Roof coating was about a year old.
- Roof site visit was made.











Conclusion

This building was close to the water.

- ▶ I was able to replicate the burn marks in the lab with a torch.
- ▶ We checked the surroundings as to what may have caused burns.
- Discovered that the 4th of July fireworks are shot off very close to this building from a barge on the water.
- Searched the internet, and found someone who had video of the fireworks that year.
- The lighted logo of the building was visible under the bursts of the fireworks.
- Told customer to have a roofing contractor cut out and repair the coating, and to speak with the municipality about the fireworks.



Case# 3 "Disintegrating" Coating

- Customer called, said that coating was falling apart.
- Photos were received, which showed curious "gouges" in the coating.
- Site visit was made.
- ► There was a "zoo" living on this roof.



There were scratches in the middle of these "gouges" that went all the way down to the TPO membrane.





These marks were examined with a loupe, and determined to be "scoop" shaped.





Snail trail







Acorn Stems





Gnawed acorns

Grooves similar to scratches in the "scoops".



Conclusion

- We knew this was a wildlife problem, but weren't sure what kind.
- There was over grown vegetation along the back of the building, and overgrown oak trees.
- ► A wildlife camera was set up to capture footage.
- ▶ We found that chipmunks were to blame.
- In fact, an inspection of the vegetation showed lots of chipmunks, and damage to drain pipes, along with bits of silicone coating on the ground.
- The customer was told to remove the vegetation and call a pest control company.
- The roofing contractor pressure washed the roof and re-coated it.





Tips for Roof Coating Forensics

- Take good quality pictures
- ► Take note of Batch Numbers, so manufacturer can check retains
- Take video if possible
- Vegetation and wildlife
- Surrounding buildings/environment
- Take samples to be examined
- Problems should be reported immediately
- Roof should be inspected at least twice a year to catch problems while they are small

