

## FEFPA 2020 WINTER CONFERENCE

**Roofing Materials, Installation Methodology and Warranties in 2020** 









# Danny will share with you his "Intellectual Property"

Roofing Materials, Installation Methodology and Warranties in 2020

Presented by:

## **Danny Stokes**

G. Daniel Stokes, CSI, CDT, RCI, CPRC President, Senior Roofing Consultant, Roof Advisors Inc.

I have over 40 years of experience in roofing systems and have presented at FEFPA many times in the past 20 Years.

#### **Roof Advisors Inc.**

Commercial & Residential Roofing Consultants



#### **Services**

- Roof Inspections and Evaluations
- Quality Control Inspections
- Hurricane Roof Inspections
- Detailed Re-Roofing Specifications
- Bid Analysis Review
- Expert Witness Testimony

#### **About Danny Stokes**

Commercial Roofing Expert

Danny Stokes is a trusted commercial and residential roofing consultant with over 40 years of experience. Originally from Chicago, Illinois Danny moved to South Florida in 1983 to pursue his career in roofing.

Danny is the former Corporate Vice President of Advanced Roofing Inc., Florida largest commercial roofing contractor and top 15 in the country. Also, past President of the Roofing Contractors Association of South Florida Dade-Broward and Palm Beach. While at Advanced Roofing he helped grow the company to over 100 Million Dollars per year in revenue. After 26 years he retired from Roof Contracting to start Roof Advisors Inc., a Roof Consulting Firm.

With more than four decades of experience in the Roofing Industry, Danny is an expert qualified in every type of roofing systems including shingles, tiles, built-up, modified bitumen, single-ply, PVC, coatings and metal.

As a former roofing contractor, Danny has managed all aspects of a roofing project from sales and estimating to construction and litigation. Danny has also written numerous articles on roofing and the Florida Building Code, published in industry-wide periodicals, as well as presented at major conferences around the United States.

#### **OUR CLIENTS**

Some of our clients include:

**Building Owners** 

**Real Estate Transactions** 

Condominium, Apartments, HOA's

**Public Government Entities** 

**Property Managers** 

Attorney/ Lawyers

#### **CAREER HIGHLIGHTS**

Lead person on the following accounts:

**Publix Supermarkets** 

\$50,000,000.00

**School Board of Broward County** 

\$40,000,000.00

**Pratt Whitney** 

\$25,000,000.00

School District of Palm Beach County

\$22,000,000.00

**Broward College** 

\$12,000,000.00

#### **ARTICLES WRITTEN**

Some of our published articles:

Success is Keeping Up with Technology & Change-Roofing Florida Periodical: April 2015

Commercial Roofing Trends-Roofing Florida Periodical: January 2010

Success is the Essence of Change: National Roofing Contractors Periodical: September 2009

## **How Does The Big Green Manage Their Roofs?**

#### Roofing

- NO Torch "FLAME"
- Stainless Steel Metal (NO Aluminum or Copper)
- R-19 Insulation
- Moisture Test at the Completion of Roof
- 5ft Spacing on Bracing Maximum
- FM Global Fastened Insulation
- NO Light-Weight Concrete
- Roofing Projects Nov-April Only (NO Roofing May Oct)
- Same Roof Systems Consistent on Properties
- Multiple Quality Control Inspections

#### **New Construction**

- Minimum 3ft-High Parapet Walls
- 22-Gauge Metal Deck
- ¼" Per Foot Slope





What Does Commercial Roofing Look Like in 2020?

**Liquid Roof Coatings Systems** 

Single-Ply Roof Membranes

Foam Adhesive

Warranties

Questions



## WHAT DOES ROOFING LOOK LIKE IN 2020?

Materials are evolving away from the traditional asphalt-based adhesive and roofing systems.









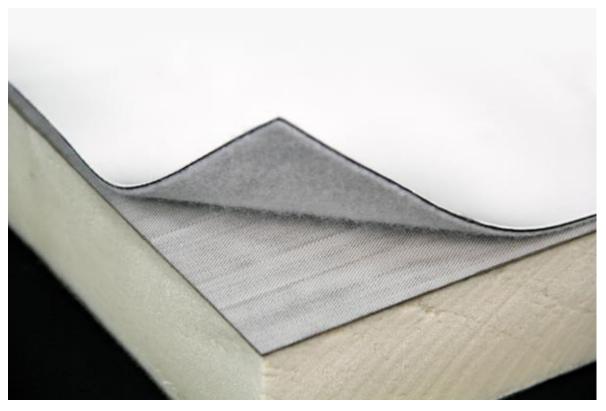




## **VELCRO**

• Can you believe it?







## **LIQUID ROOF COATING SYSTEMS TYPES**

- Acrylic
- Silicone
- Urethane
- Resin
- Polyester or Fiberglass Reinforcing
   Mat/Fabric are becoming very popular.





## **LIQUID ROOF COATING SYSTEMS BENEFITS**

- Have Much Less Aroma Than the Asphalt Products.
- Very Environmentally Friendly & Highly Reflective.
- Custom Built Roof Manufactured On-Site to Fit Your Roof Challenges.
- Select Coatings Can Withstand Ponding Water.



# **Acrylic**

#### **Benefits:**

- Economical
- Metal Roofs
- Water-based



# **Acrylic**

#### **Benefits:**

- Economical
- Metal Roofs
- Water-based



# <u>Silicone</u>

#### **Benefits**

- Highly-Reflective
- Good for Ponding Water









## **Silicone**

#### **Short Falls**

- Gets Dirty
- Shorter Shelf Life





# <u>Urethane</u>





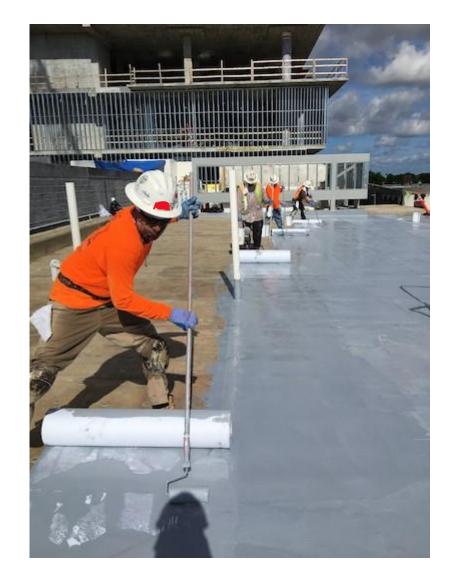
# <u>Urethane</u>



## **Resin**

Resin and Polyester Mat





# **Resin**

Resin and Polyester Mat





## Polyester/ Fiberglass Reinforcing Mat/Fabric

Spray spatter full coverage



## Polyester/ Fiberglass Reinforcing Mat/Fabric







## SINGLE-PLY EVOLUTION/ PROS & CONS

#### **PROS**

- Light Weight
- Elongation
- Totally Adhered
- Highly Reflective
- Reinforced

#### **CONS**

- Prone to Blow Offs
- Shatters
- Mechanically Fastened
- Gets Dirty
- Unreinforced

## SINGLE-PLY ROOF MEMBRANE THICKNESS

- Now available in much thicker membranes.
- 80, 90 & over 135 Mil Membranes now are taking the place of the traditional 45 & 60 Mil Standards of the past.

45 MIL60 MIL

VS

80 MIL 90 MIL

135 MIL

#### **Benefits:**

- No exclusions for ponding water
- ➤ Light weight installation
- Much lighter than traditional built-up roofs



# **THE ROBOT**





# The 2020 Roof System is Less Than 1/3 the Weight of a 1980's Roof System.

- Allows for More Economical Alternatives in Structural Metal Decks
- Expanded Bracing

# Yellow Spaghetti (Roof Protection)







## **FOAM ADHESIVE**

- Foam is a Tenacious Adhesive
- "Positive Pressure"
- Now used in Adhering Roofing System Components.
  - Insulation
  - Single-Ply Membranes
  - Base Flashings
  - Concrete and Clay Roof Tiles





# **Two Component Spray Foam Adhesive**



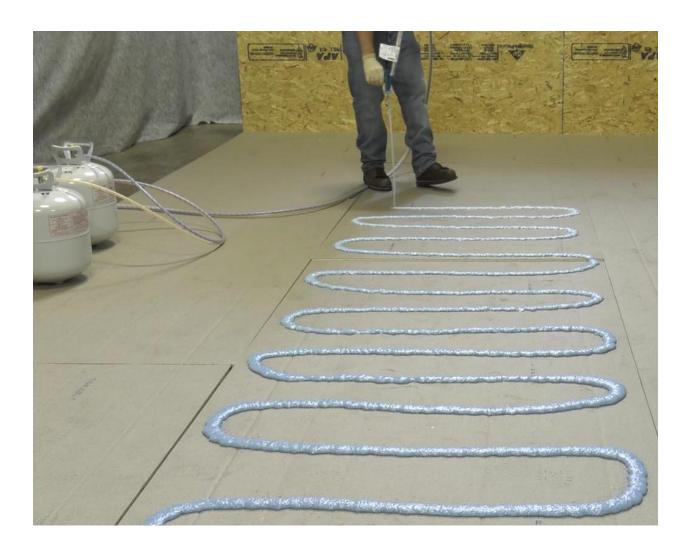


## **INSULATION**

#### **Splatter Adhesive Technique**



#### **Ribbon Adhesive Technique**



# CONCRETE AND CLAY TILE INSTALLATION

Set in Foam Adhesive

#### **WRONG WAY**



#### **RIGHT WAY**



## FOAM ADHESIVE BENEFITS

- There is Virtually No Smell
- Uplift Pressures are the Highest in the Roofing Industry.
- Miami-Dade and Florida Approvals
- Miami Dade NOA 989 PSF Approved
- Foam is much lighter than asphalt
- More economical
- More ergonomic
- Alternatives in structural design of buildings allows for the possibility of lighter gauge steel in the construction of the building.



## When Are We Going to Stop Drilling?

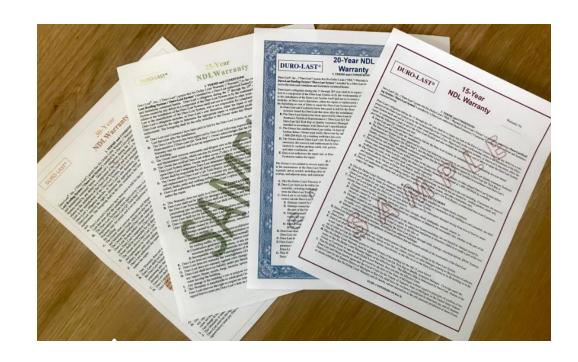






## FLAT ROOF WARRANTY HISTORY

- 1980-90's: Traditional in the 80's was a 10-15 Year Material and Labor Warranty (Prorated)
- 2000+: 20 Year Material and Labor NDL (No Dollar Limit) Warranty
- 2020: 30 Year Material and Labor NDL (No Dollar Limit) Warranty
- Roof Tile Underlayment 30 Year Material and Labor Warranty



## ROOF WARRANTIES IN THE FUTURE

Warranties Are Now Offering Items Building Owners Have Been Asking Manufacturers for Years, NOT TO EXCLUDE.

#### What are the new items they are offering?

- Accidental Puncture Resistant Warranties
- No Exclusions for Ponding Water
- Consequential Damages to the Interior of the Buildings.

Now will cover Damage to the Interiors Contents,

Computers, Drywall and Flooring.



## **QUESTIONS?**

