

# **WORLD OF WINDOWS 2013**

**The importance of PU foams & sealants  
for perfect insulated and installed  
windows  
Hello PUNE**

**Amit Malhotra**

# World leader

- **Soudal is the nr 1 independent foam manufacturer in the world**
  - Production of > 100 million cans in 2012
  - 4 production units (Belgium, Poland, China, Slovenia,)
  - All technologies and all sizes
- **Soudal is the nr 3 sealants manufacturer in the world**
  - Production of > 175 million units in 2012
  - 9 production units (Belgium, Germany, Poland, USA, Chile, Singapore, China & India, Turkey)
  - All technologies and all sizes



# Production India

- Investment of 50 Cr. in Bawal (Haryana – 100km South of Delhi)
- Production started in June 2012









**Sealants, Adhesives & Foams  
for**

**Construction Applications**





# Expert in Sealants, Adhesives & Foams

**Weather Protection**

**Air & Dust Tight**

**UV Protection**

**Water Proof**

**Sound Proof**



**Acoustic Insulation**

**Thermal Insulation**

**Energy Saving**

**Sustainable**

**Durable**

Zak World of Windows Conference

# Example (uPVC window)

## Construction site

- ▶ Sealing uPVC windows
- ▶ Acetic cure 'GP' silicone has been used
- ▶ Use a Neutral Silicone to avoid adhesion failure → NO SUSTAINABLE SOLUTION



# Perfect finishing





# Perfect finishing



# D&W package



Think Sealant Think McCoy Soudal

McCoy®  
SODAL



# Our Valued Customers



And many more...



# Silirub PS

Sealing between frame (uPVC) and wall or frame & glass







Zak World of Windows Conference

# Condensation and mould

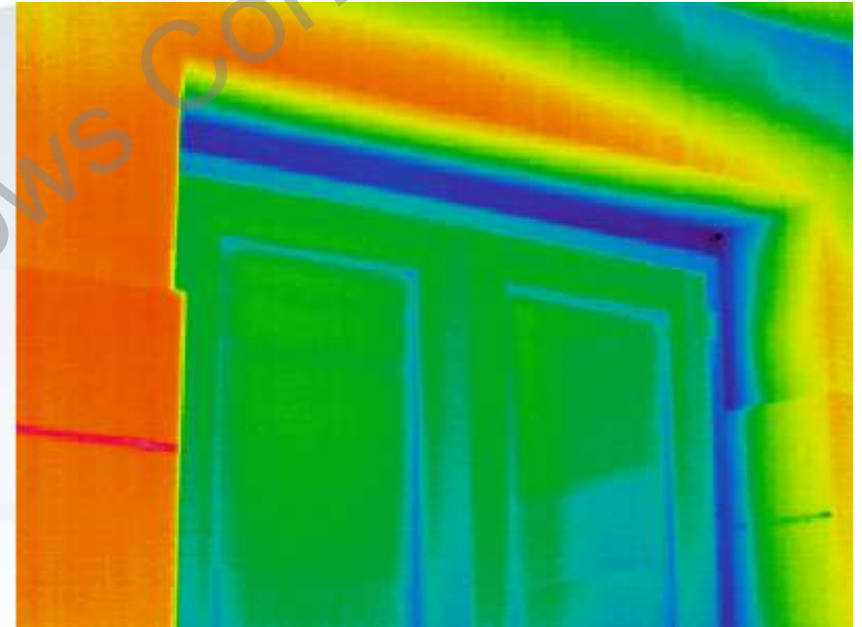
Thermal bridges could also mean moisture problems !

- ▶ Cold surfaces on inside of the window joint
- ▶ Condensation; first mould is formed within 5 days

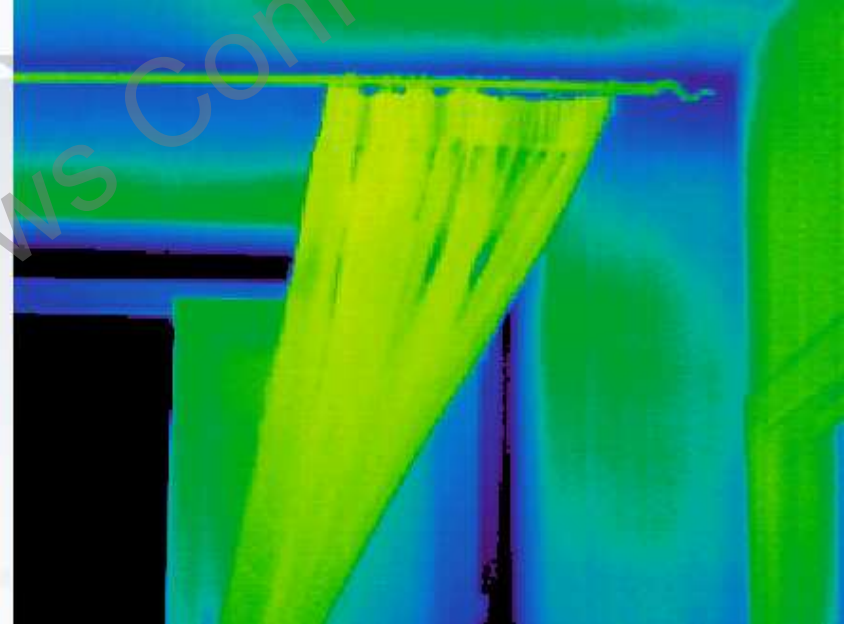




# Condensation and mould



# Condensation and mould



Zak World of Windows Conference



# Properties of PU-Foams

- ▶ Most popular material to seal windows & doors
- ▶ Easy & clean application
- ▶ **Excellent thermal and acoustic insulation**
  - **CONTRIBUTE ON SAVING ENERGY & HEAT/COLD PROTECTION**
- ▶ Excellent adhesion on most common materials and between different materials (except PP, PE, teflon) with strong bonding characteristics → extra fixation of the window
- ▶ Excellent filling capacities, expands to 40 times its original volume
- ▶ Environmentally friendly (CFC-free) propellant gas



# Window Frame Installation





**STEP 1: Fix the window first with anchors**



**STEP 2: clean the joints before applying PU  
FOAM (no dust, no loose particles)**



**STEP 3: Moisten the  
joints before applying  
PU foam**





**STEP 4: SAFETY MEASUREMENTS:  
wear safety goggles & gloves**



**STEP 5: small joints (less than 10mm) can be filled by using plastic extension which comes with every application gun.**





**STEP 6: shake the can 20 times before application, then apply PU foam in the joints, fill joints 80% to avoid wastage of foam**





**Keep the can always upright during the application. If can is almost empty it will be difficult to extrude the foam if the can is not kept upright**



**STEP 7: VERY IMPORTANT – always clean the top of the gun after application with the Gun & Foam cleaner.**







## STEP 8:

When the PU foam can is not empty and your job is over for the day, then:

- ▶ Clean the top of gun (step 7)
- ▶ Close the gun at back (black screw)
- ▶ Store the can with gun upright.
- ▶ Re-use the foam within 4-6 weeks.
- ▶ Store the can with gun in below 35° C and out of direct sunlight



**STEP 9: let the foam cure for minimum one hour before cutting the foam. Make sure to use a very sharp knife.**





**STEP 10: before applying the silicone or acrylic sealant, make sure there is enough depth for the sealant (min. 5mm), if required push the foam deeper into the joint with your finger**







Zak World of Windows Conference









# Importance quality of foam









Zak World of Windows Conference

# Wooden door frame installation

Conventional  
Method



Modern  
Method



Zak World Windows Conference



# PU foam vs. Conventional

- ▶ Up to 3 times faster installation
- ▶ Easy & clean
- ▶ Acoustic & thermal insulation properties
- ▶ Economical



## STEP 6: Plaster over foam





**THANK YOU FOR YOUR ATTENTION**

FOR MORE INQUIRIES YOU CAN ALWAYS CONTACT :

McCoy Soudal..