

# 3D STICK Macrostickies measurement



# AUTOMATED STICKIES MEASUREMENT METHOD

- > Determination of the 3D morphology of screened particles
- Classification of the particles as stickies among contaminants
- > Stickies classification by a combination of laser triangulation and local near-infrared (NIR) spectroscopy
- > Provides rich information on chemical nature of the stickies
- > Practical, repeatable, and responsive

# RICHER INFORMATION

- > 3D Morphology
- > Macro contaminants classified by their chemical nature
- > No restriction to stickies (plastics)



# NON CONTACT METHOD

- > Stickies are not pressed
- > Real size is measured
- > link to exposure index

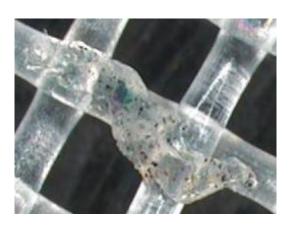
# **INGEDE METHOD #4**

- > Pressing deformation and time consumption
- > No 3D Information
- > No information on nature



# **STICKIES PARTICLES**

 Most harmful mini-stickies are mainly PSA (Pressure Sensitive Adhesives)



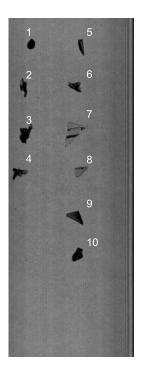
# **Macrostickies measurement**

# **TAPPI**



- > Determination of the 3D form of the contaminants (3D topography)
- > The form remains intact

# **3D STICK**



- > Contaminants crushed
- > Contaminants chemically undetermined

#### **EXAMPLES OF CONTAMINANTS**

- > 1- PVA-Homopolymer
- > 2- VAE / Acrylic aqueus dispersion
- > 3- Hotmelt, EVA based
- > 4- PSA acrylic based
- > 5- Hotmelt, EVA based
- > 6- Hotmelt, hydrocarbon resins
- > 7- Polyethylene (PE)
- > 8- PET (polyethyleneterephthalate)
- > 9- PET
- > 10- Polystyrene (PS)

# **POLYMER DATABASE**

- > Number of registered substances : 42 (delivery state, flexibility supplemented)
- > Speed for measuring strip 290 x 26 mm : 300 objects in 20 minutes / 10 objects in approx 5 minutes



# TECHNICAL CHARACTERISTICS OF 3D STICK

Laser beam: Beam width (in Y) 26 mm

Height range (in Z) 1.6 mm Resolution (in Z) 3 microns Resolution (in X) 20 microns Resolution (in Y) 20 microns

Operating system: Software running under WINDOWS

Power supply: 220V/50 Hz or 110V/60 Hz, 50W

Dimensions: 610 mm (I) x 500 mm (w) x 500 mm

