



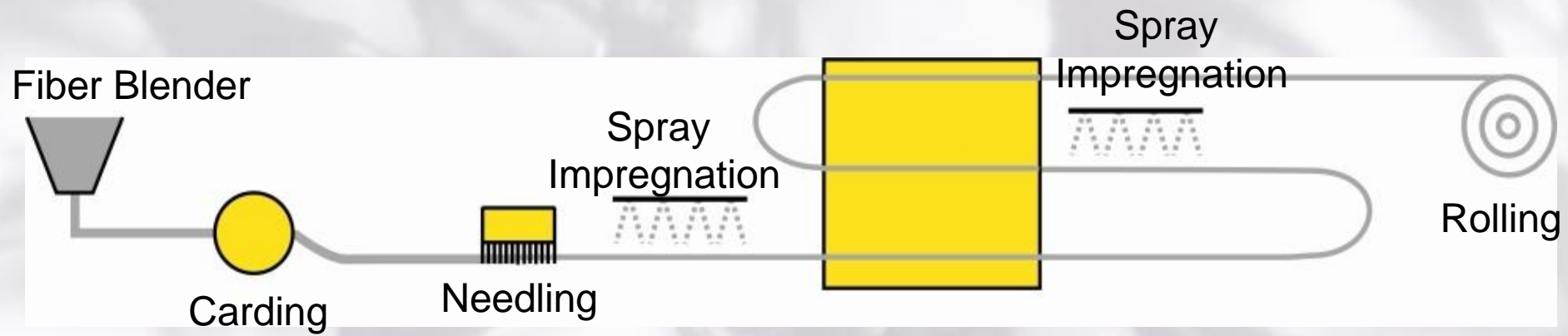
Non Woven Abrasives

Unraveling the Mystery



Production Process

Plant Tour in Pictures

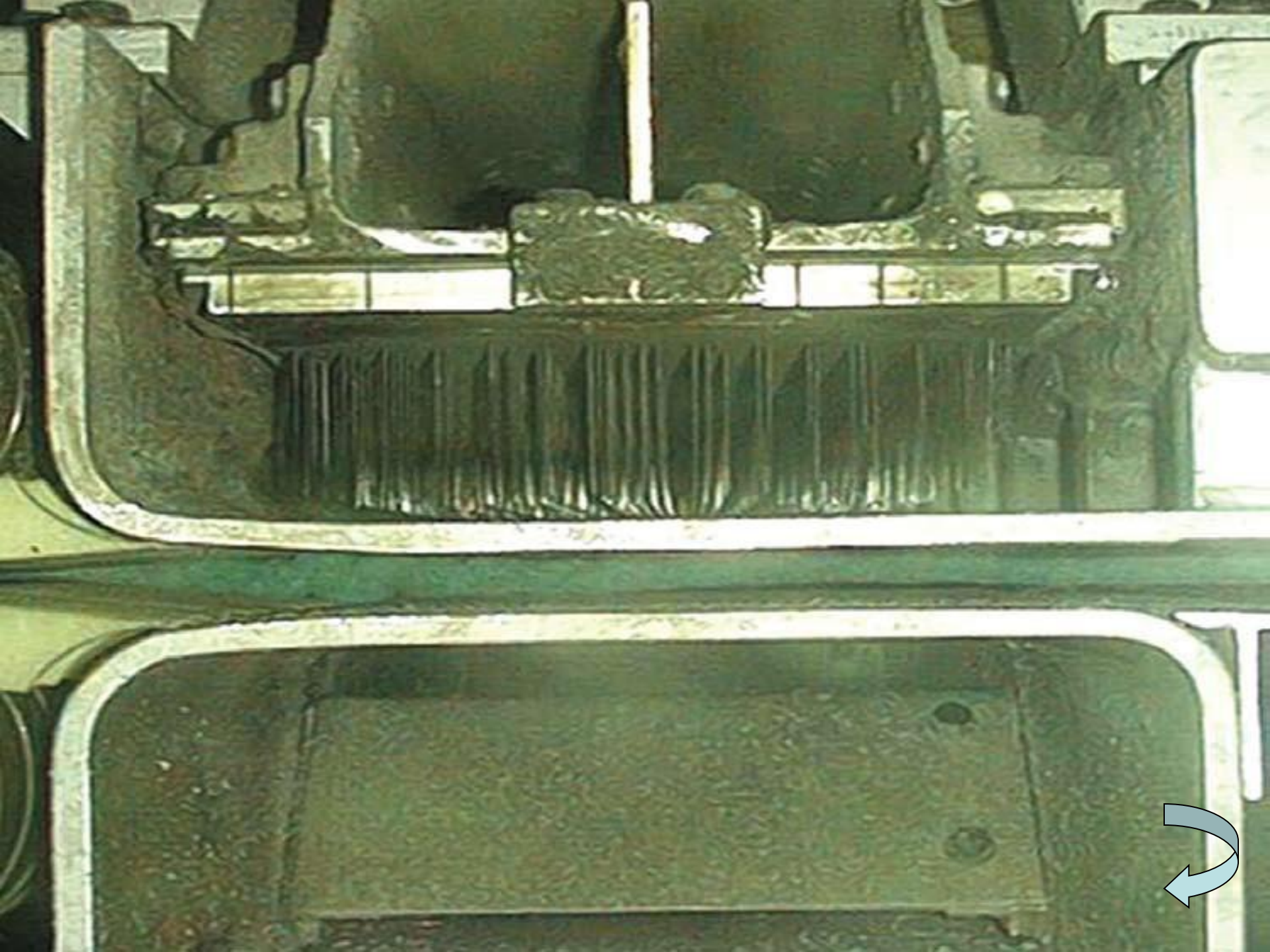


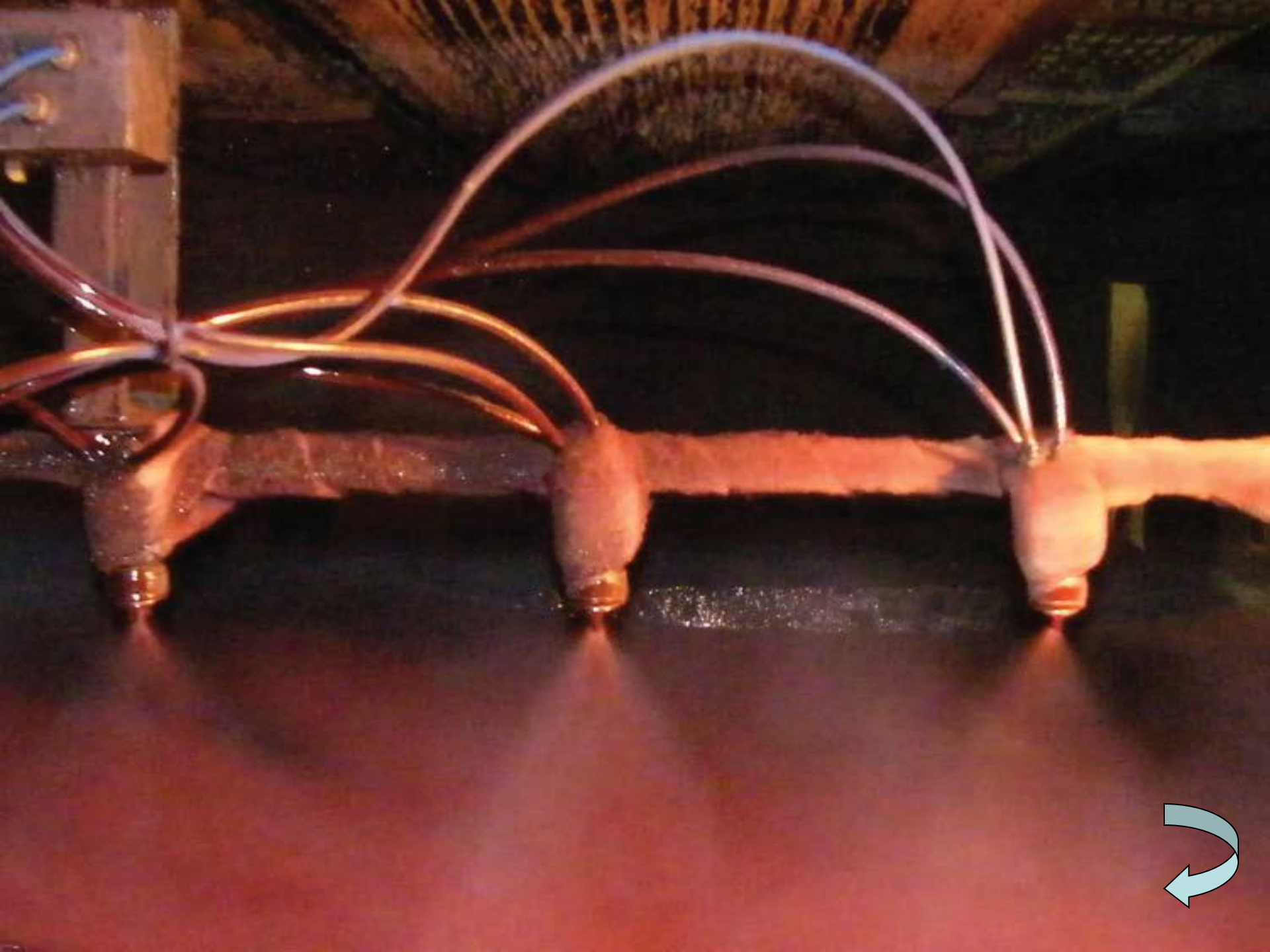
Fiber →













The background of the image is a complex, three-dimensional network of dark, fibrous structures. These fibers are interconnected in a non-linear, mesh-like pattern, creating a dense and intricate web. The fibers vary in thickness and orientation, giving the overall appearance a textured, almost crystalline quality. The lighting is soft, highlighting the individual strands and their intersections against a light, off-white background.

Fiber

Physical Properties

- Type
 - Polyester vs Nylon
 - Cost vs performance
- Denier
 - Size matters
 - Strength
 - Flexibility
 - Durability
 - Cut

Color

Dyed vs natural



Resin

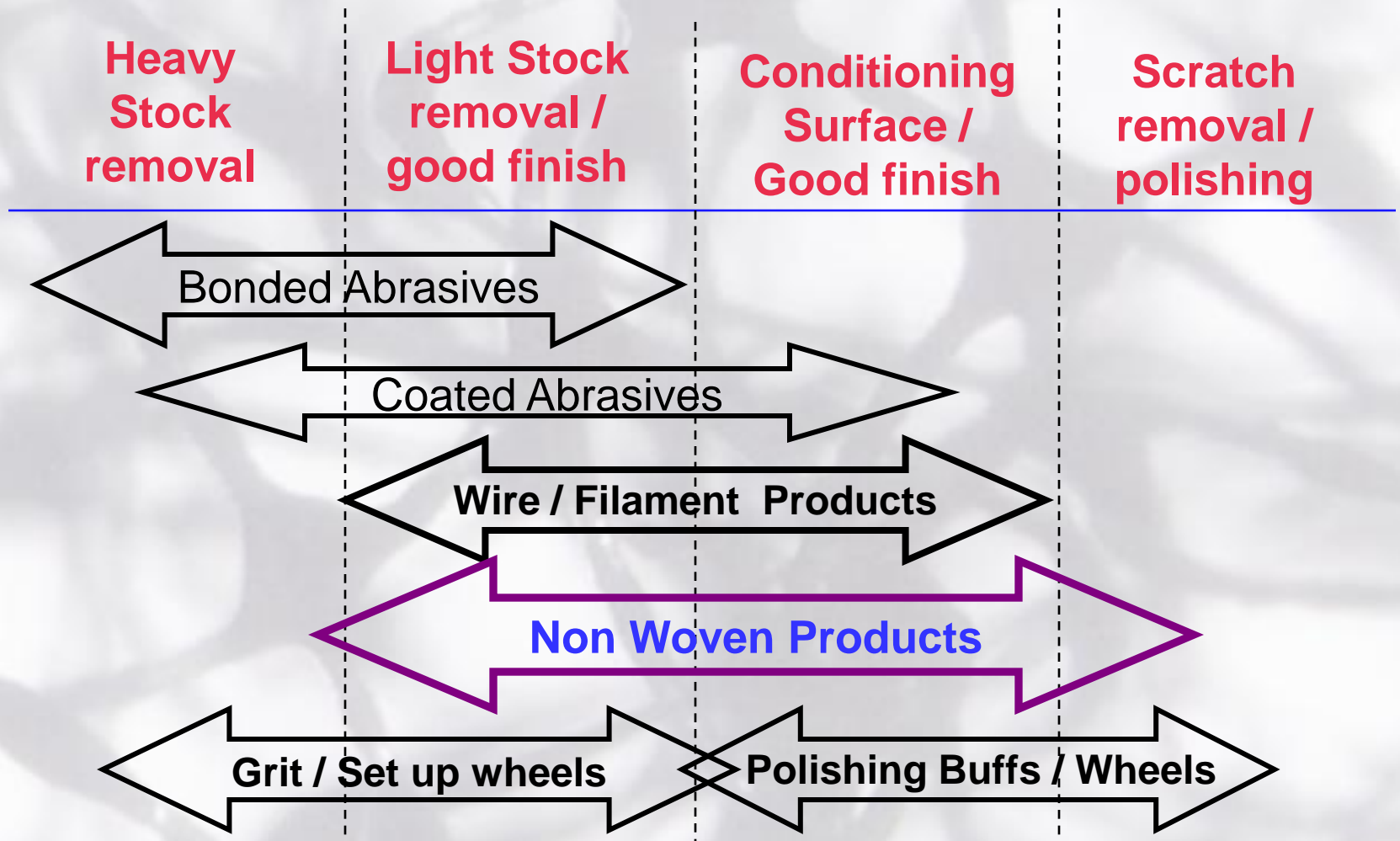
Phenol vs Urethane

- Phenol attacks fiber
- Phenol is temp resistant
- Urethane is more flexible
- Urethane is more expensive
- Phenol changes color
- Urethane has better adhesion to Nylon



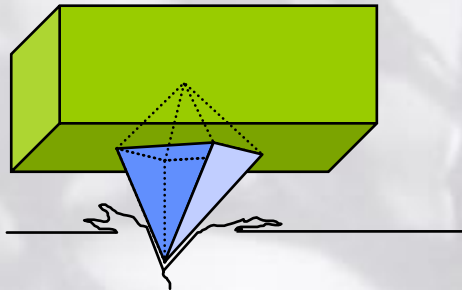
Principle of Function

Position of Non Woven products in relation to other abrasive media

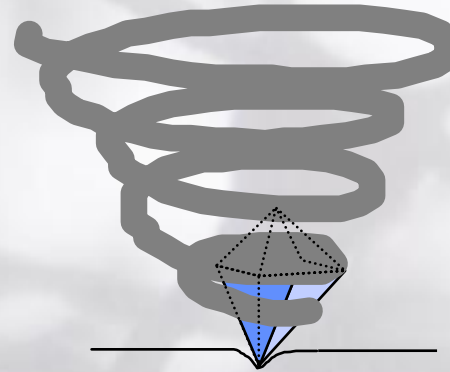


Coated vs Nonwoven

coated abrasive

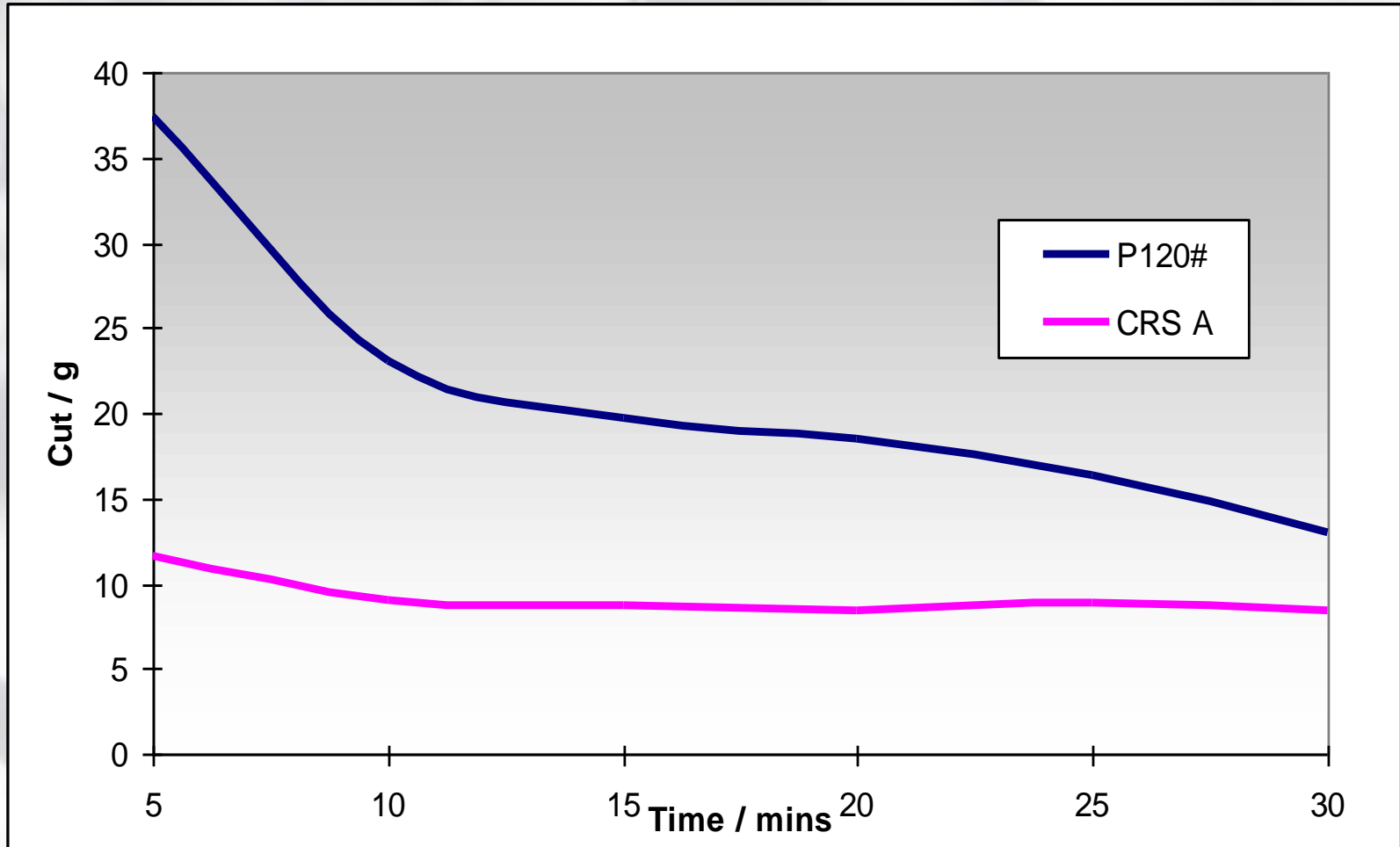


nonwoven abrasive

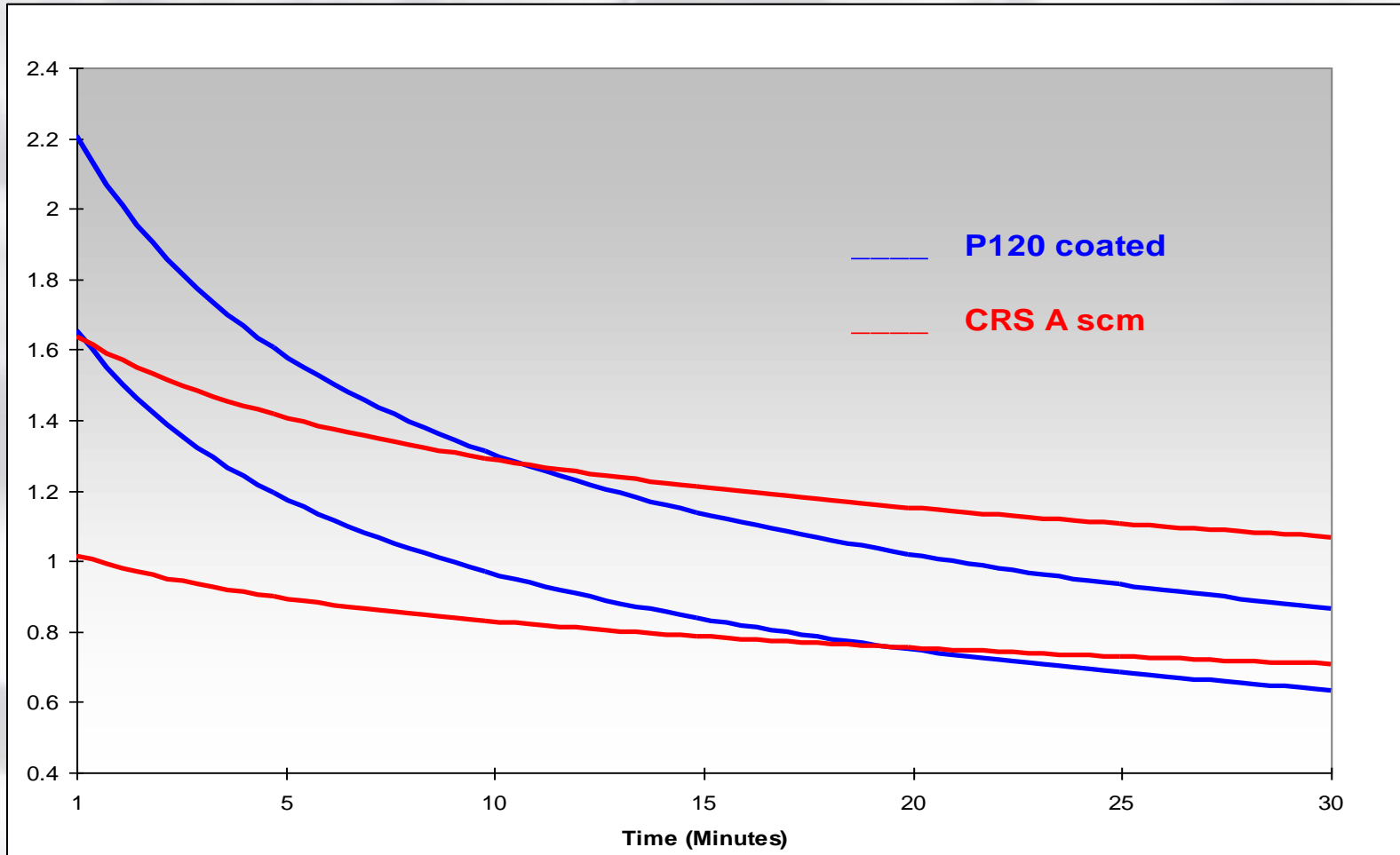


- Scratch depth
- Micro deburring
- Consistency of finish
- Lower temperature

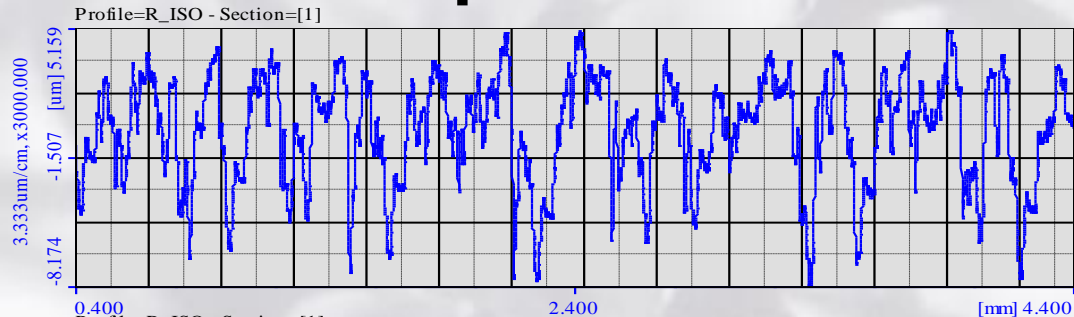
Comparison of abrasive cut over time for a P120 grit coated abrasive compared to a Coarse A surface conditioning disc



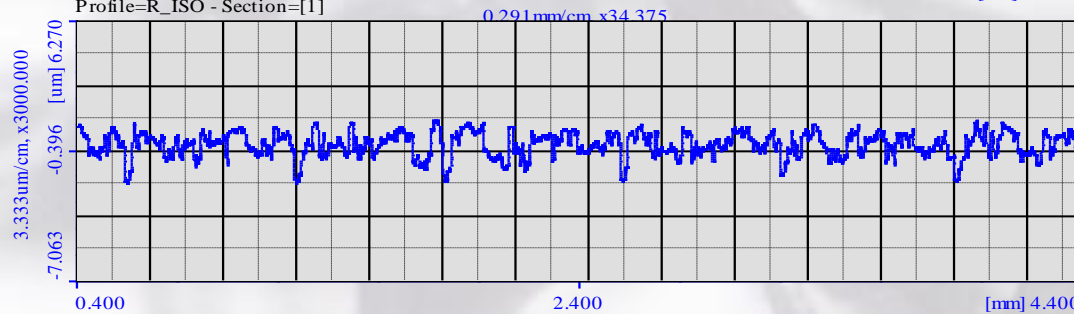
Comparison of abrasive finish over time for a P120 grit coated abrasive compared to a Coarse A surface conditioning disc



Surface finish comparison

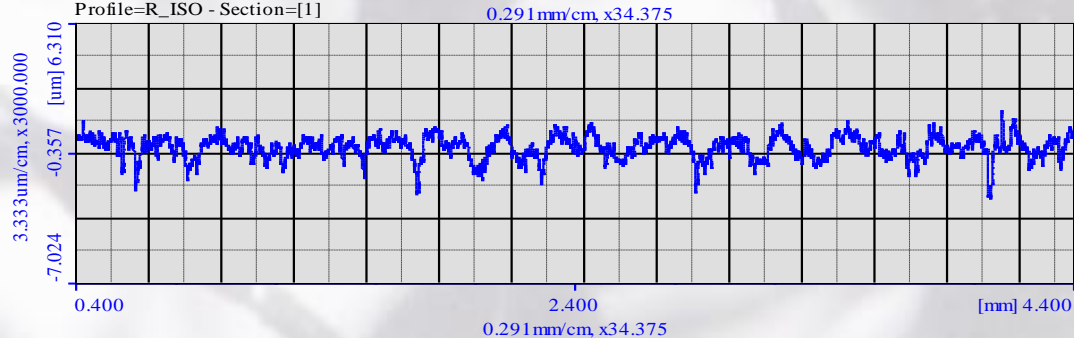


- P60 Resin Fiber Disk
- Ra = 2.24
- Rt = 13.17
- Rz = 11.94



- P120 Resin Fiber Disk

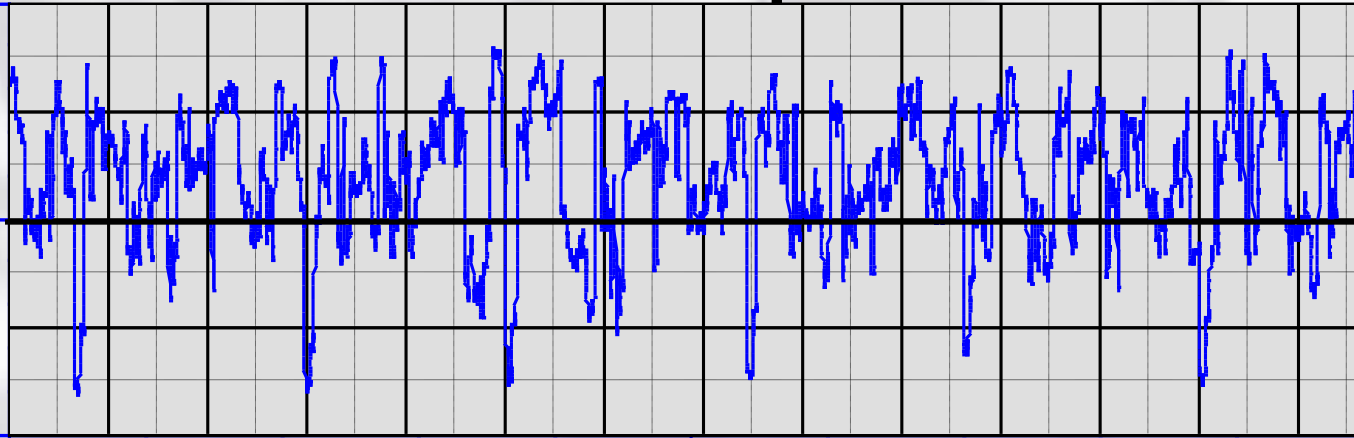
- Ra = 0.5
- Rt = 3.17
- Rz = 2.97



- Coarse SCM (P60)
- Ra = 0.45
- Rt = 3.5
- Rz = 2.9

Surface finish comparison

Profile-R_150 - Section-[1]

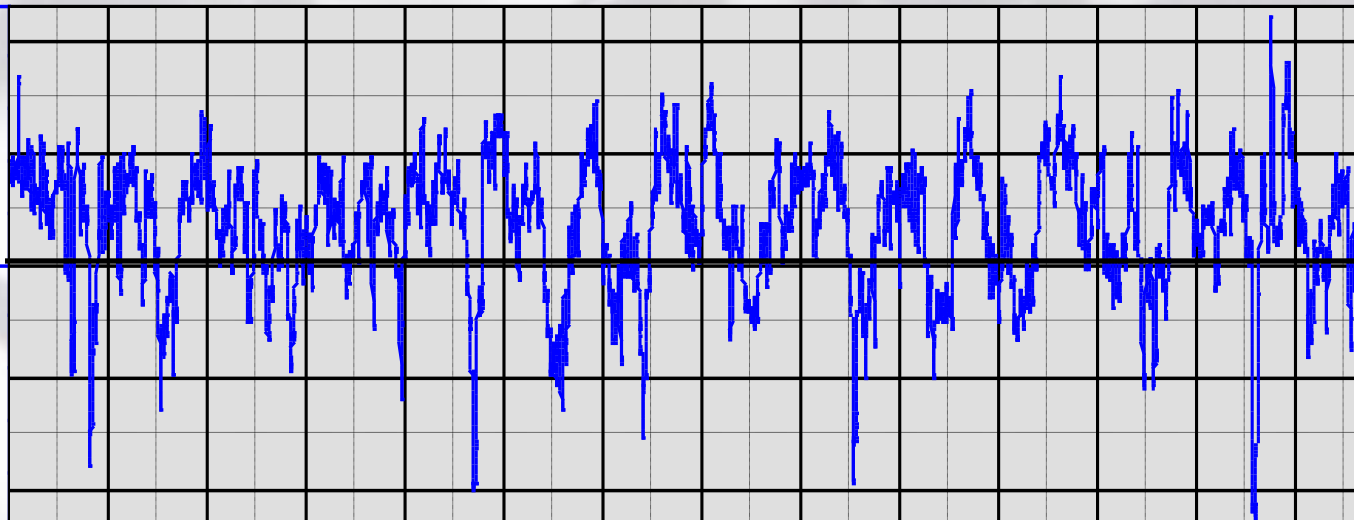


•P120 Resin
Fiber Disk

•Ra = 0.5

•Rt = 3.17

•Rz = 2.97



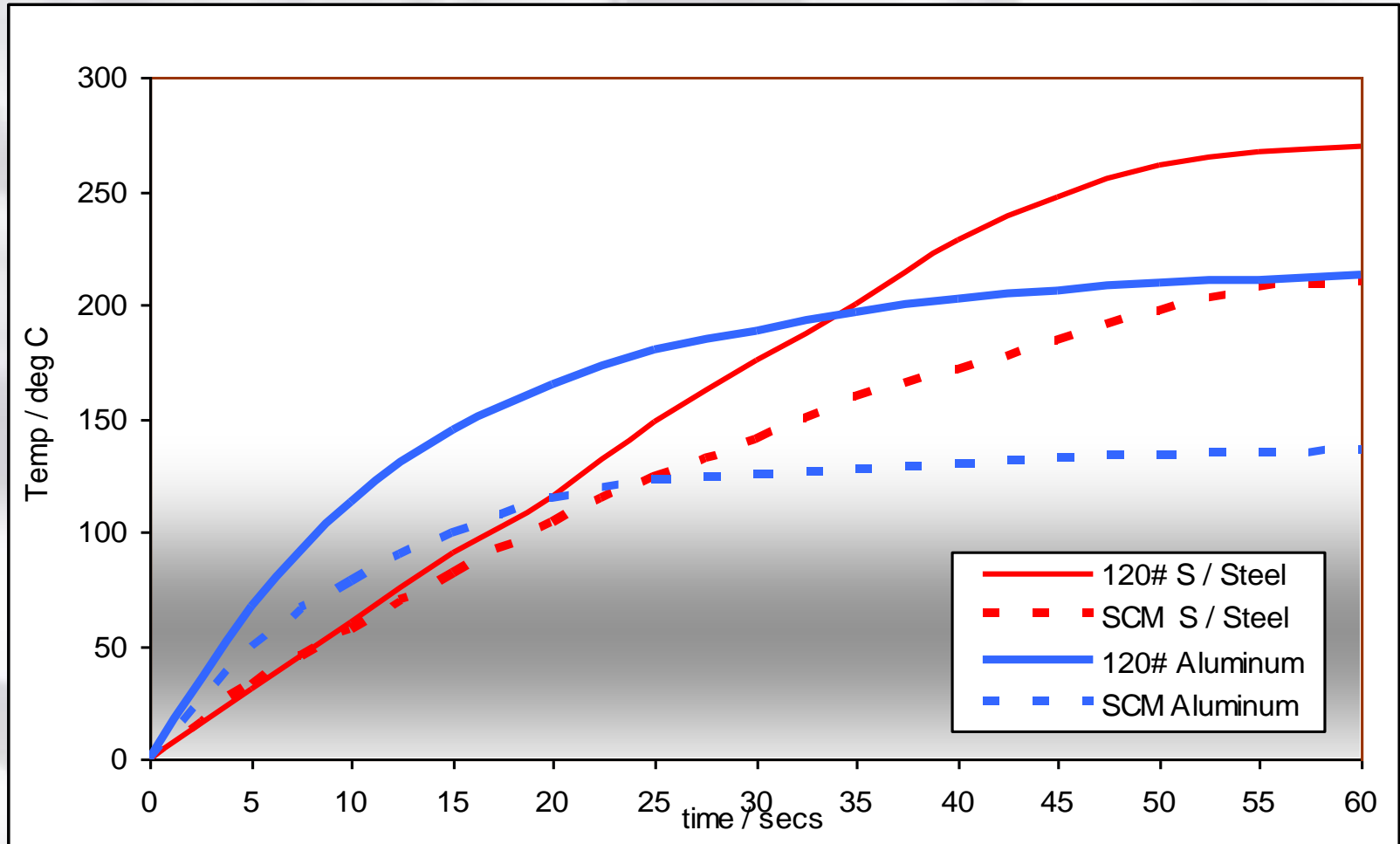
•Coarse SCM

•Ra = 0.45

•Rt = 3.5

•Rz = 2.9

Temperature increase over time for a P120 grit coated abrasive compared to a Coarse A surface conditioning disc



Foam Vs. Nonwoven

Foam shares properties of both Coated and Non-Wovens

- Flexibility
- Conformability
- 2 dimensional abrasive structure
- Surface finish changes over time
- Shaped forms (built in tool)



Application

Fleece

- CF – Nylon, smaller denier, phenolic.
 - Handwork, handpads etc.
 - Light machine finishing



- HD – Nylon, large denier, more resin and grit.
 - Heavy Machine Finishing
 - Intricate Shapes

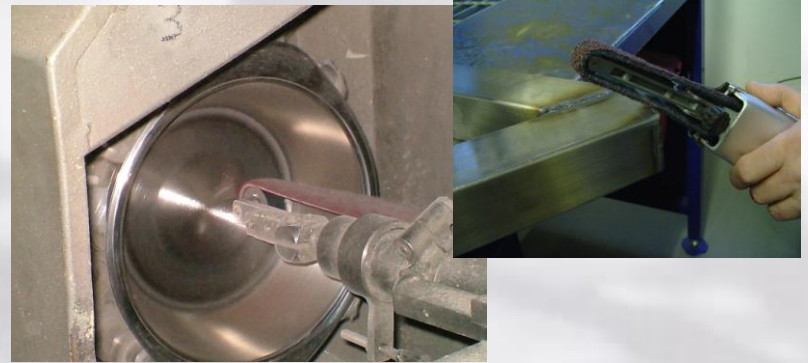


- SD – Nylon, urethane
 - Deburring / Edge breaking
 - Flexibility to access extreme angles



Surface Conditioning Material

- Applications for Belts
 - Cookware
 - Hardware
 - Metal Fabrication

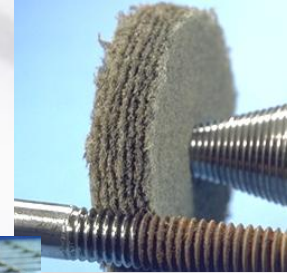


- Applications for Disks
 - Weld blending
 - Refining Coated abrasive grind lines



Technical Wheels

- Unitized
 - Deburring
 - Weld Blending
 - Cleaning



- Convolute
 - Deburring
 - Finishing

