



## **PROCESSING ADDITIVES**

### **An Overview**

Chris Ryan Sr.

**Struktol Company of America**

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### **Struktol History**

- Struktol Company of America is a member of the Schill & Seilacher family of companies.
- Schill & Seilacher - Mfg in Hamburg, Germany
- SCA - Mfg in Stow, Ohio
- Manufacture processing additives for thermoset and thermoplastic Industries.

## ***Peptizers***

- A 80 - Mild peptizing and processing
- A 82 - Medium peptizing
- A 86 - Strong chemical peptizer
- A 95 - Very Strong chemical peptizer.

## ***Peptizers - Benefits***

- A 80, A 82 - Very effective peptizing and processing additive for Natural and Synthetic rubber.
- A 86, A 95 - Very strong viscosity reducer. Will break down very nery rubber and dramatically reduce viscosity.

## ***Plasticizers***

- WB 300 - Ester plasticizer
- KW 400 - Low temperature
- AW 1 - Antistatic plasticizer

## ***Plasticizers - Benefits***

- WB 300 - Improve oil and fuel Resistance
- KW 400 - Low temperature flexibility
- AW 1 - Antistatic properties

## ***Homogenizing Resins***

- 40 MS - Dark colored hydrocarbon resin
- 60 NS - Light colored and non-staining hydrocarbon resin
- HP 55 - Hydrocarbon and processing additive blend

## ***Homogenizing Resins - Benefits***

- 40 MS, 60 NS- Improves the homogeneity of elastomers of different polarities.
- HP 55 - Improves mixing and milling.
- Improves hot tear without adverse effects on dynamic properties.

## ***Dispersing and Processing***

- Zinc Stearate - General purpose aid
- W 34 - Low cost process aid
- WB 212 - Good general purpose aid
- WB 222 - Very active process aid
- HPS-11 - Very high performance aid
- WB 16 - Good processing and offers metal release.

## ***Dispersing and Processing Benefits***

- All products mentioned will :
  - Increase flow
  - Lower viscosity
  - Improve filler dispersion
  - Promote release from metal surfaces.
  - Improve overall processing

## ***Metal Based Processing Additives***

- A 50 - Zinc soaps
- A 60 - Zinc soaps
- EF 44A - Blend of zinc soaps
- Activator 73 - Mixture of zinc salts
- ZB 47 - Blend of zinc soap
- ZEH-DL - Zinc 2-Ethylhexanoate
- JV 46F - New product blend of fatty acid derivatives

## ***Metal Based - Benefits***

- A 50 - Physical processing aid that lubricates the polymer chains.
- A 60 - Physical processing aid and lubricant.
- EF 44A - Processing aid for a wide range of elastomers. Good product for dispersing fillers, especially mineral fillers.

### ***Metal Based – Benefits cont.***

- Activator 73 - Improved reversion, higher modulus, less heat buildup, viscosity reduction.
- ZB 47 - Improved dynamic properties and reversion.
- ZEH-DL - Very good reversion resistance in NR.
- JV 46F - Newly designed processing additive. Improvement of processing behavior for a wide range of elastomers.

### ***Rubber Surface Additives***

- TR 121 - Amide of oleic acid
- TR 131 - Amide of erucic acid
- TR 141 - Saturated amide with no double bonds

### ***Rubber Surface Additives - Benefits***

- TR 121 - Blooms to the rubber surface and lowers the coefficient of friction. Fast migration.
- TR 131 - Slower migration to the rubber surface. Higher heat stability.
- TR 141 - Will not interfere with peroxide cure systems.

### ***Fluorinated and Silicone Processing Additives***

- WS 280 - Fatty acid derivatives and silicones.
- HT 290 - Fatty derivatives and waxes.

## ***Fluorinated and Silicone Rubber Processing Additives***

- WS 280 - Very good for mold release and sticking to the mill.
- Improves flow properties and mold fouling.
- HT 290 - New product designed for processing fluoroelastomers. Good lubricating properties for metal release.

## ***Silanes***

- SCA 98 - Tetrasulfide
- SCA 985 - Disulfide
- SCA 989 - Mercapto
- SCA 1100 - Amino
- SCA 974 - Methacryloxy
- SCA 930 - Chloropropyl
- SCA 971 - Vinyl