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Top Glove, Top Quality, Top Efficiency,
Good Health, Safety First & Be Honest
Production Department (F11)

F11 Customer Complaint for TR Defect Analysis in Year 2010

F11 TR Defect Complaint Received
(Sort by Glove Product)

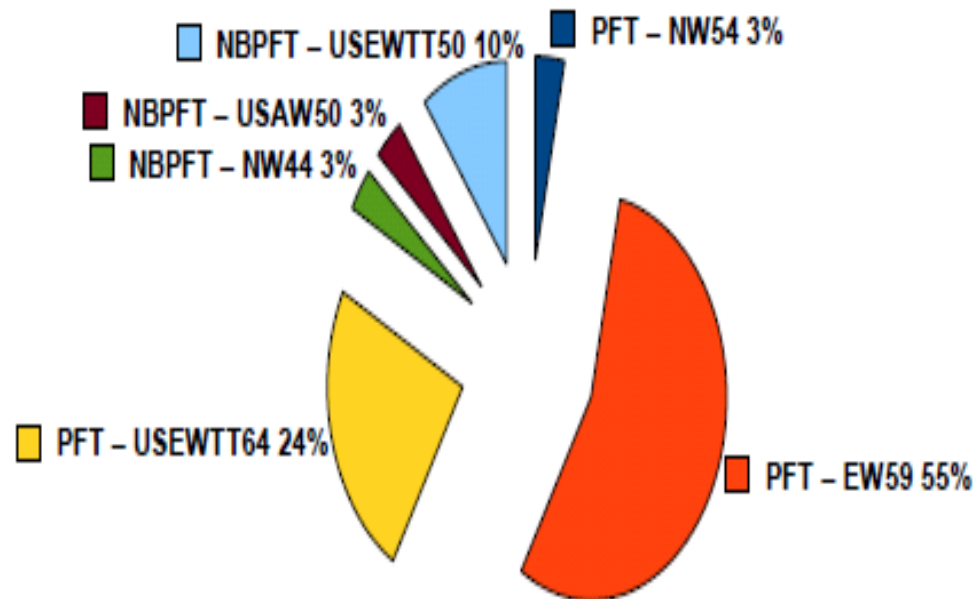


Chart 1: F11 Tearing Defect Complaint Received (Glove Product)

Chart 1 Analysis:

Tearing Complaint analysis based on product:

NR Glove Product:

- 1) PFT NW54 = 3 %
- 2) PFT EW59 = 55 %
- 3) PFT USEWTT64 = 24 %

NBR Glove Product:

- 4) NBPFT NW44 = 3 %
- 5) NBPFT USAW50 = 3 %
- 6) NBPFT USEWTT50 = 10 %

(Highest complaint from PFT EW59)

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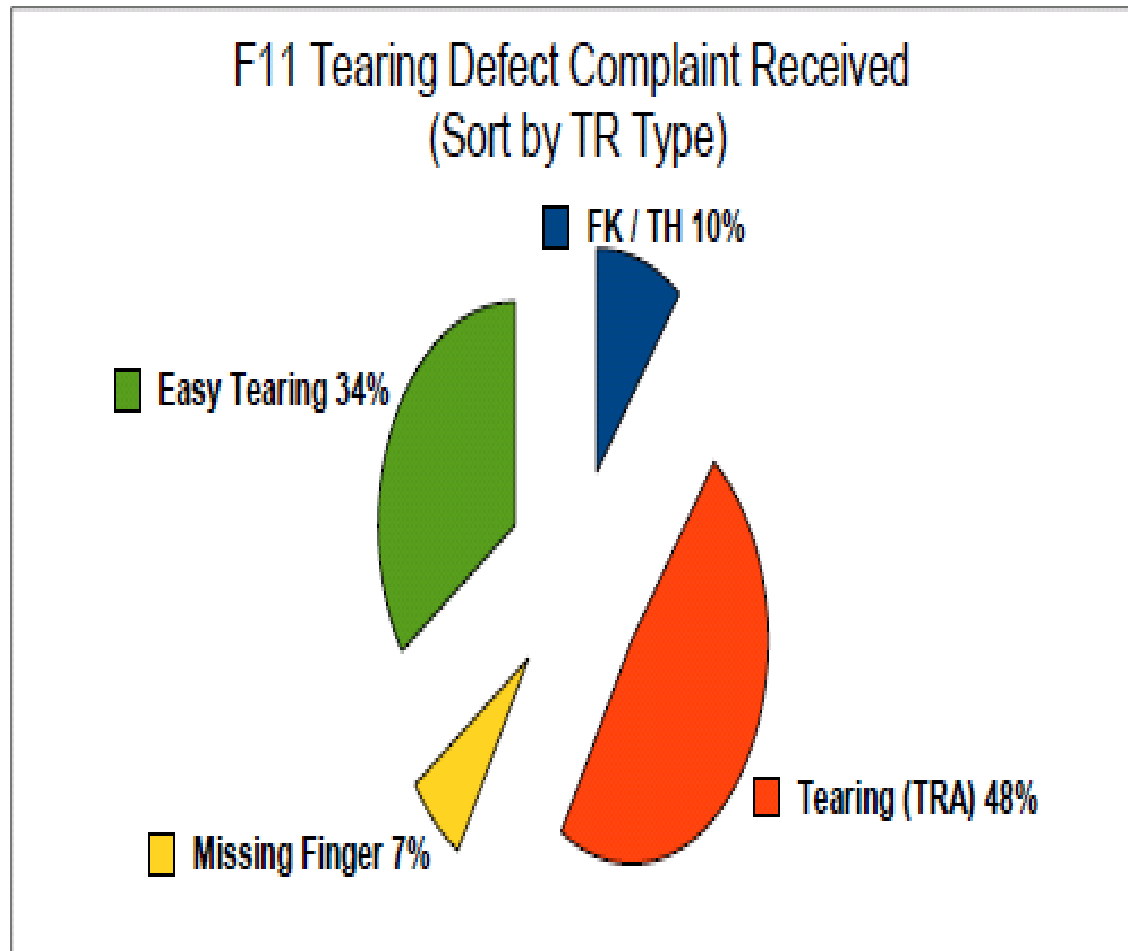


Chart 2: F11 Tearing Defect Complaint Received (TR Type)

Chart 2 Analysis:

Total TR Complaint received = 29 cases

NR - PFT Product = 24 cases (83%)

NBR-NBPFT Product = 5 cases (17%)

F11 Tearing Complaint majority come from:

- 1) Tearing (Air Jet tearing) = 48 %**
- 2) Easy Tearing = 34 %
- 3) Former Knocking / Touching = 10 %
- 4) Missing Finger = 7 %

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Fish Bone Chart for Tearing Defect F11

Tearing Air Jet (TRA)

Man : ~ Stripper allow TR glove inside 1st grade basket

Method : ~ Swelling Index Below / Above Standard
(Overcure / Undercure)

~ Cuff Stick lead to hard stripping

Material : ~ Filler too High

Machine : ~ Former dirty / Worn out at cuff area
~ Air Jet Pressure Too high

Former Knocking (FK) / Touching (TH)

Man : ~ Stripper allow FK / TH glove inside 1st grade basket

Method : -

Material : -

Machine : ~ Former with poor alignment / bend condition lead to 2
formers touching together
~ Former Bracket holes becomes bigger
~ Former Holder bent
~ Touching with other object due to mechanical problem
~ Main Conveyor Chain Loose
~ Production line sink down issue

**Tearing
Defect**

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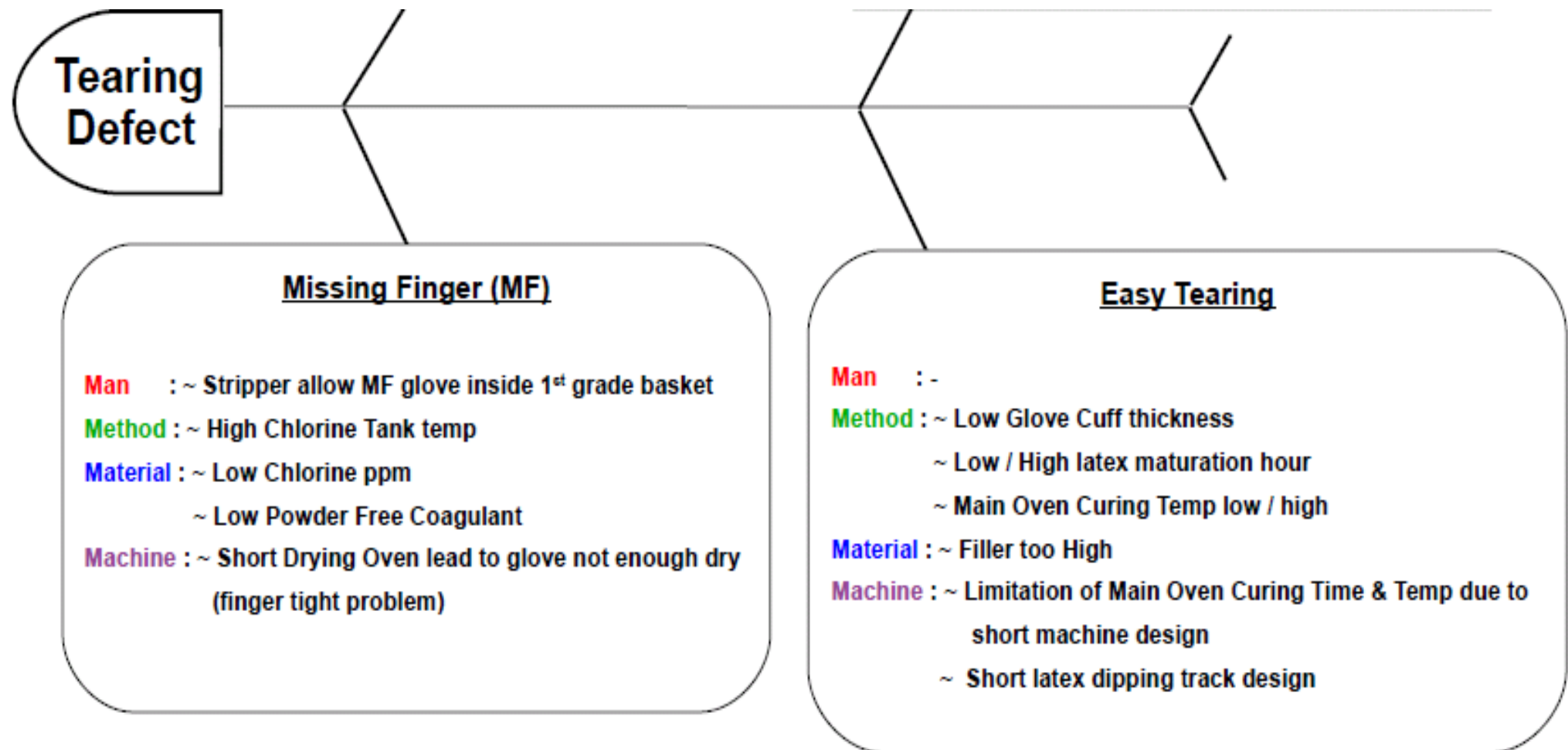
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Corrective / Preventive Action (CAPAR) Chart for Tearing Defect F11

Tearing Air Jet (TRA)

- a) Control standard latex SI through good communication between Comp, Prod & Lab Dept
- b) Control optimum Filler content
- c) Control optimum Curing Oven temp
- d) Study former washing frequency
- e) Control optimum air jet pressure
- f) Provide more training to strippers
- g) Put more label & issue TL to Non-conformance

Former Knocking (FK) / Touching (TH)

- a) Study Former Bracket shelf life
- b) Conduct frequent checking on mechanical parts to prevent any Former Knocking / Touching issue
- c) Provide more training to Former & Maintenance team to detect & rectify the mechanical problem
- d) Maintenance team to jet up the sink down line & study for improvement

Corrective & Preventive Action (CAPAR) Chart

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Corrective / Preventive Action (CAPAR) Chart for Tearing Defect F11

Corrective & Preventive Action (CAPAR) Chart

Missing Finger (MF)

- a) Control optimum topping-up of PF Coagulant
- b) Control optimum Drying Oven temp
- c) To modify drying oven to blower type for more even curing effect in double former line structure
- d) Control optimum chlorine ppm
- e) Control low Chlorine tank temp

Easy Tearing

- a) Improve cuff thickness glove through coagulant spraying method
- b) Control optimum latex maturation hour
- c) Control optimum Curing Oven temp
- d) Control optimum line speed
- e) Control optimum filler usage
- f) Modify longer latex dipping track profile

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CONCLUSION AND SUGGESTION:

1. To reduce easy tearing, COMPOUNDING FORMULATION is the most important, follow by process control.

Example:

- i. Thin nitrile glove ENLW40 (25% lower weight) but with higher tear strength if compare with USAW50.
- ii. ABNT glove with lower weight than USA or USEW but with higher tensile strength and elongation

(To prevent easy tearing, our **glove must with good strength or softer glove with good elongation**)

2. To reduce customer complaint on easy tearing, the most important is to set up a CONTROL SYSTEM.

In manufacturing process, if the parameter **CANNOT BE MEASURED or IS NOT MEASURED**, then the parameter **CANNOT BE CONTROLLED or IS NOT CONTROLLED**

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Example:

ABNT glove and EN std glove:

Tensile strength and Force at Break are measured and controlled (only release shipment if pass tensile strength or force at break)

Result: Minimum or no complaint on easy tearing

How about NW, EW, USEW orders???

We MEASURE the parameter (tensile strength) but we DO NOT CONTROL (Release whatever we had produced)

Result: More customer complaints on easy tearing.

3. Tighten quality control definitely INCREASE COST AND REJECT RATE

Are we prepared to do so??? Especially during high raw material cost now???

Suggest to control the tensile strength for selected high price or quality sensitive orders.

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