

MES COURSE MODULE

IN

TEXTILES – HDPE/PP

- 1. Module Name:** **Slit Tape Extruder Operator**
2. Sector: Textile – PP/HDPE - Extrusion
3. Code: HDP 703
4. Entry Qualification: Minimum 7th Standard and 14 years of age
5. Terminal Competency: After completing the training candidate would be able to operate the extruder, take readings of the speed/heat control panels and produce tapes of correct denier and width.
6. Duration: 300 hours.
7. Course content

Practical Competencies	Underpinning Knowledge (Theory)
<ul style="list-style-type: none"> ➤ Ensuring that the raw materials taken for extrusion are of required quality. ➤ Systematically starting the extruder ➤ Maintaining the right speed to get the specified denier and tape width. ➤ To check the tapes being extruded for defects ➤ To doff the machine after getting the required bobbin size ➤ Controlling and monitoring the digital control panels ➤ Practicing the work considering safety and health aspects. ➤ Mock drill for fire fighting and first aid. 	<ul style="list-style-type: none"> ➤ The importance of different attributes of the PP/HDPE raw materials, extruded tapes for its denier, tape width, tape colour. ➤ The quality requirements of the tapes like denier, tape width and colour, the operations and maintenance of the extruder. ➤ Defects in Tapes and the consequences of mix-ups. ➤ Concepts of denier and method of measuring the same. ➤ Measuring the width of tape and identifying the mix-ups. ➤ General discipline in the work area. ➤ Safety precautions in a polymer plant and especially in extrusion area. ➤ First aid and fire fighting ➤ Communication skills and reporting skills

8. Tools and Equipments for a batch of 20 trainees.

DESCRIPTION	QUANTITY
Slit tape extruding machine	2
Billets of different qualities	As needed
Spanner Sets	4 sets
Allen Key set	4 Sets
Caps, hand gloves and shoes	20 sets

- 1. Module Name** **Heavy-duty Tailor**
- 2. Sector** Textiles - **PP/HDPE Tape Plant** Finishing
- 3. Code** HDP 704
- 4. Entry Qualification** Minimum 7th Standard and 14 years of age
- 5. Terminal Competency** After completion of the course, the trained person would be able to operate stitching machine in efficient manner and produce the bags of the required dimensions.
- 6. Duration** 300 hours
- 7. Course content:**

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> ➤ Understanding the dimensions of the bag and the design. ➤ Ensuring the correct size of needle and the sewing threads. ➤ Cleaning the machines before starting stitching, and oiling as necessary. ➤ To systematically start the stitching machine and finish the bags in given dimension. ➤ Verifying the stitch per inch, the stitch quality and uniformity of stitching line from the edges before sending it to next process. ➤ Practicing the work considering safety and health aspects. ➤ Mock drill for fire fighting and first aid. 	<ul style="list-style-type: none"> ➤ The quality specifications requirement of the bags like dimension, finishing, stitching. ➤ The importance of different attributes of the PP/HDPE fabric. ➤ To finish the bags as per the specified dimension, while stitching to ensure that the stitching is as per pre-specified. ➤ Need to understand the given parameters of the bags like whether single fold or double fold and single needle stitch or double needle stitch. ➤ Discipline at the work ➤ First aid and fire fighting ➤ Safe precautions in a polymer factory

8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
Spanner set	1 Set
Allen key set	1 Set
Stitching machine	1 No
Measuring tape	20
Good light and place for the candidates to sit and inspect the fabric	4 square metre per candidate

- 1. Module Name** **Quality inspector**
- 2. Sector** Textiles - **PP/HDPE** - QC
- 3. Code** HDP 705
- 4. Entry Qualification** Minimum 9th standard and 14 years of age
- 5. Terminal Competency** After completion of the course, the trained person would be able to check the quality parameters of tapes and fabric, report in a suitable format in time and ensure bad quality materials are kept aside.
- 6. Duration** 400 hours
- 7. Course content:**

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> ➤ Understanding the quality requirements of the materials under inspection or under production. ➤ Checking the denier of the filaments. ➤ Checking the tensile properties of tapes and fabrics. ➤ Comparing the results with the norms and putting the remarks as accepted or rejected. ➤ Conducting additional tests when required. ➤ Systematically recording the findings and reporting to the concerned for taking actions. ➤ Marking the rejected materials and keeping them in assigned place till corrective action is taken. ➤ Practicing the work considering safety and health aspects. ➤ Mock drill for fire fighting and first aid. 	<ul style="list-style-type: none"> ➤ The importance of different attributes of the PP/HDPE raw materials, extruded tape for its Denier, tape width, tape colour, strength, elongation and fabric mesh and strength. ➤ To identify the tape defects and fabric defects. Communication skills and reporting skills ➤ Discipline at the work ➤ First aid and fire fighting ➤ Safe precautions in a polymer factory

8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
Tensile tape testing M/C	1No
Tensile fabric testing M/C	1No
Wrap reel	1 No
Good light and place for candidates to sit and inspect the tapes/fabric	4 square metres per candidate