

CHAPTER (3)

AIM OF THE WORK

In recent years the reprocessing of textile wastes have assumed increased importance and attracted more interest in cotton spinning mills, the reasons are to be found in the rising a cost of raw material which is represents about 60% to 70% from the direct manufacturing Costs, Consequently ways and means were sought for recycling the spinnable fibers Present in the textile wastes, which fall into three main categories, Trashy waste, clean Waste and hard waste such as roving (twisted), yarn and knitting.

This work is focuses on optimal utilization of hard waste through produce coarse Open.

End yarns of three metric counts 10/1,17/1.20/1 in quit marketable, especially for use in Fancy yarns, Decorative fabrics, Furnishing, under sweet shirt and Blanket.

The yarns are producing through blending five mixes have been selected, Avoiding to the Raw material, the first and the second mixes are blending the opened thread waste with the Polyester fibers (32 mmX1.2 dtex) in 75/25 % and 88/12 % respectively, the third, the Fourth and the fifth mixes are blending the opened knitting waste (Clips) with the same Polyester fibers properties in 90/10 %, 80/20 % and 70/30 % respectively. The range of Percentage of hard waste varies from 70% to 90% which is three times greater than the Percentage recommended in the literature which ranges from 10%to 30% this possible due To the type of cotton in the hard waste.

Very good properties were obtained like 14.2 R.K.M in 10/1 Nm, low number of thin places in most of the counts. The corresponding parameters for all blends were 40000 r.p.m Rotor Speed, 5.8 Twist Factor, 8500 r.p.m Combing Roll Speed. All the results are tested.

The important conclusion is while waste fibres cannot have a universal application they may be used successfully in a wide range of end products, in 100% waste from or mixed with varying percentages of natural or man-made fibres. Certainly no single set of recommendations can be laid down for handing wastes. The technique used must vary with the type, even though in each case the purpose of the preparation system is the same: to produce fibres in a clean and opened state for spinning.