

METALLIC YARN – PART II

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Manufacturing of Metallic Yarns

General processes of manufacturing Metallic fibers are:

- 1) **Laminating Method** – In this method, a layer of Aluminum foil around 0.00045inch thickness and 20inch wide is sealed between two layers of acetate or polyester sheet. To both sides of the sheet, a thermoplastic adhesive is applied. The adhesive-coated foil is heated to about 90-95°C, and a sheet of cellulose acetate-butyrate transparent film is laminated to each side of the foil by passing through squeeze rollers at a pressure of 2000 lb/in.

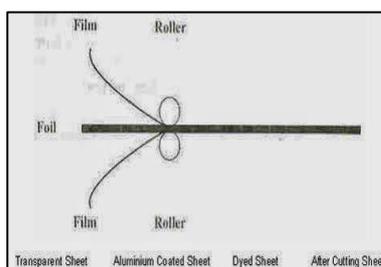


Fig 1.1 Laminating Method

The laminated material is then slitten into filaments of the required width, the most popular width being 1/64 inch although other sizes from 1/8 inch to 1/120 inch are also made.

- 2) **Metallizing Method** – This process involves the heating of the metal till it vaporizes. Then it is deposited at high pressure onto the polyester film. This process produces the thinner, more flexible, more durable and more comfortable fibers.



Different types of coloured Metallic Yarn

Gold is the most important colour which is produced by the addition of an orange-yellow dyestuff to the adhesive. Silver is mere the colour of the aluminum itself.



Fig 1.2 Colour Palate of Metallic yarn

Other colours such as bronze, peacock blue and red are obtained by using the suitable pigment. Multi-coloured effects, e.g. red and green alternating irregularly along the length of the yarn, are obtained by pre-printing the plastic film and laminating it.

To be continued...

Wishing you a great week ahead!

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