



Industrial Tapes & Fabrics Pvt. Ltd.

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Why INTAF Polyglass Tape is better than Steel Banding ?

For many years bands were made of high-strength steel wire (some still are). Although of adequate strength, such bands are relatively costly to apply and suffer from two inherent drawbacks.

One is that eventual fatigue and breakage of the wire allows broken ends to fly out and cut stator coil insulation. The second is that the wire itself is a conductor, requiring added insulation from the winding being banded.

To eliminate both problems, more than 30 years ago motor manufacturers began using resin-saturated banding tape containing glass fibers. Once in place, the multi-turn tape band is heat-cured, fusing the tape into a solid ring. Because the tape itself is a non-conductor, no additional dielectric protection is needed. Damage to stator insulation does not result in the unlikely event of tape breakage. For the same cross-sectional area, wire and tape have comparable breaking strengths.

INTAF Polyglass tape has been designed for the use in electrical machines of all types for the banding of rotors, commutators, etc. It consists of twisted glass yarns impregnated with a special thermosetting polyester base resin. The special advantage of the tape is its high thermal withstand making it suitable for operation at temperatures up to 200°C and its high moisture resistance.

INTAF Polyglass Tape has certain important advantages over steel banding. These are:-

- absence of eddy currents and consequent absence of local over heating.
- no chance of breaking due to fatigue or failure of welds.
- no chance of flashover between winding and steel bands.
- no need for extra insulation since the banding is excellent insulation by itself.
- lower banding time and lower cost.

The Tape is particularly suitable for use in motors which operate under the condition of high temperature and humidity, e.g. traction motors, motors used in mines etc.

INTAF POLYGLASS BANDING TAPE vs. STEEL BANDING

- INTAF Polyglass Tape itself is an insulating band due to glass fiber & resin as a raw material whereas steel band is as fully conducting.
- There are very less chances of bursting of glass banding tape whereas there are more chances of opening of steel wire & breaking of steel band.
- The tape has very high arc resistance whereas steel band has very less arc resistance, and the ratio is about 10:1.
- The tape is itself an insulating band. No eddy current is produced whereas in steel band eddy current is developed and the band is heated as a result.

