

Award for TPM Excellence, Category B

THAI INDO KORDSA CO., LTD.



1. Organization Profile

Kordsa

In 1973 Kordsa, the leading manufacturer of industrial nylon and polyester yarn, tire cord fabric and single end cord, was established as a subsidiary of Sabanci Holding. The map below displays the business area of Kordsa



Thai Indo Kordsa

The company was founded in 1990 in Ayutthaya, Thailand as Thai Branta Mulia as the leading producer of Nylon 66 and Polyester tire cord fabrics in Thailand. In 2006, Thai Branta Mulia became an integral part of Kordsa. Afterwards, Thai Branta Mulia was renamed to Thai Indo Kordsa. As of 2021, the Thai shareholders holds 35.81% of Thai Indo Kordsa's shares whereas PT Indo Kordsa holds 64.19% of the shares. The company itself represents the image of outstanding professionalism, highly qualified products, and holds overwhelming passion to perform with utmost efficiency which has made the company succeed to this day.

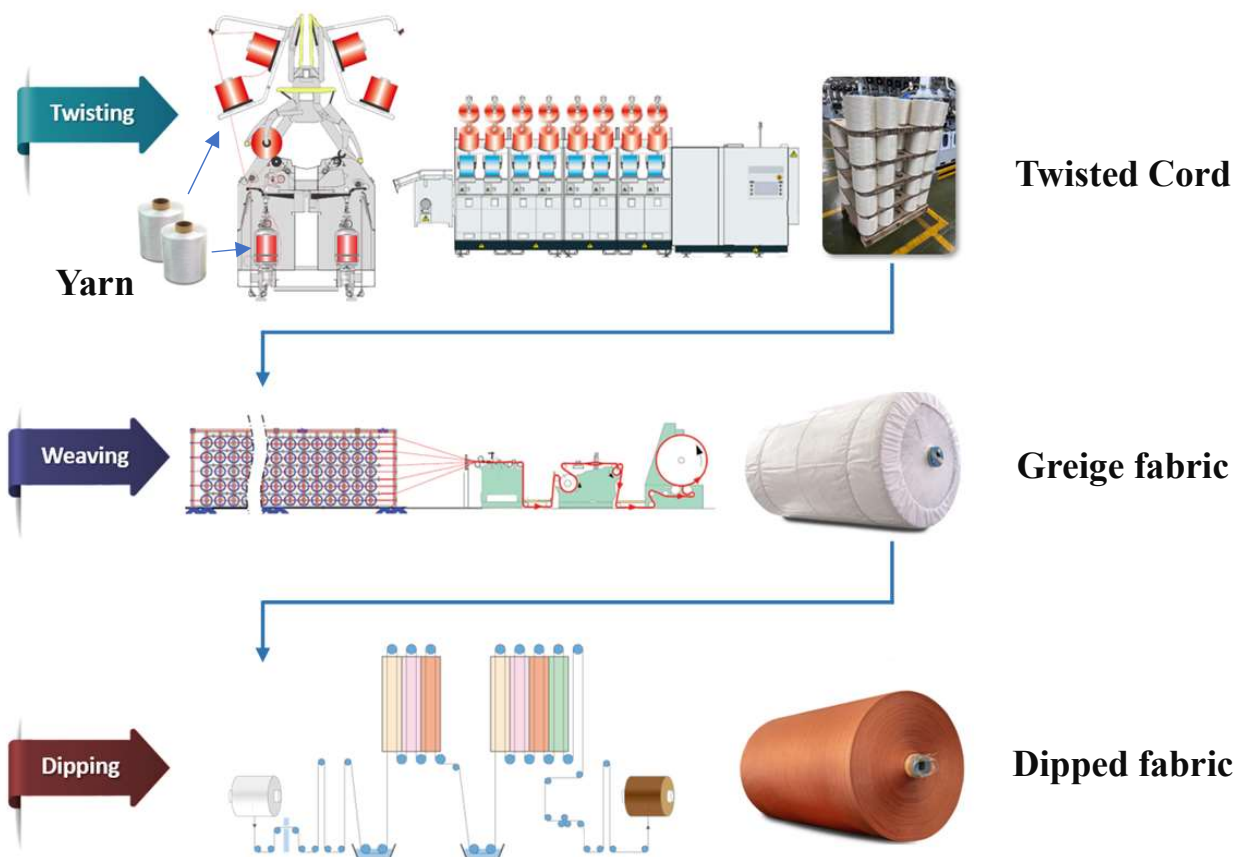
Product

The Thai Indo Kordsa business line is based on the manufacturing of tire cord fabric are made from Nylon 66 and Polyester, which are highly resistant to high temperatures, has high modulus, low elongation, good dimensional stability, and low humidity absorption and shrinkage.



Process

The Tire cord Fabric (TCF) production process starts from the Mill unit (Twisting and Weaving) in yarn preparation area. The Raw material preparation operator prepare the yarns then Twisting operator load yarn to the twisting machines according to the production schedule. After finished twisting process, twisted cords are doffed from twisting machine to pallet and store in intermediate area. For weaving process, Creel loading operator load twisted cord to weaving creel then the weaver operator weave greige fabric and doff the greige fabric from weaving machine. Last process is Dipping process that dipping greige fabric with dipping solution, drying and treat with tension. The flow of production process can be seen in below figure.



2. Milestone on the Journey to Manufacturing Excellence

Since beginning 2016, TPM meaning was the road for us to walk on to change our mindsets to handle all issues to make our business and social life easier and more efficient.

Since the first day of TPM implementation in the company, up until now, as Thai Indo Kordsa Employees, from every discipline and all level, we are walking all together and working hard to have better safety performance, high quality products and services, including lower breakdowns and with less waste.

For sure, continuous improvement required to put in practice lots of Kaizen every day in your activities and you can realize it with happy and dedicated employees. 2022 was the year for Thai Indo Kordsa to get “Great Place to Work” certificate. On top of this wonderful success, we also reached 8.1 million hours free injury days in our all operations. While our product and service quality are increasing in parallel customer complaint numbers are decreasing.

We are aware that this is not the end for us. The life is ongoing and changing very fast! So, the challenges in the world and around us will not stop. In a such competitive environment, we will keep our dedication and energy level at highest level to learn from our TPM consultant and each other in the company to add values our activities hence add value our products and services to keep our customers, employees, business partners, communities and for sure our shareholders.

3. Benefits Achieved

Below are tangible benefits on key business results.

| Category | Index | Unit | Benchmark 2016 | Actual Status 2023 |
|----------|--|------------------|---------------------|-----------------------|
| P | OEE | % | 70.8 | 71.6 |
| P | Number of breakdowns | Breakdowns/ year | 416 | 232 |
| P | MTBF <ul style="list-style-type: none"> • Twisting • Weaving • Dipping | Hour | 2,971 613 165 | 4,250 1,110 223 |
| P | MTTR <ul style="list-style-type: none"> • Twisting • Weaving • Dipping | Hour | 5.2 3.1 2.0 | 1.6 1.6 2.0 |
| Q | Customer complaints | Number/year | 6 | 3 |
| Q | In-line defect rate | % | 0.58 | 0.48 |
| Q | Rework | % | 1.66 | 0.92 |
| D | Production Lead time | Days | 30.2 | 26.3 |
| S | Accident | Cases/ year | 0 | 0 |
| M | Number of Employee Suggestions | Number/year | 258 | 965 |

Intangible benefits to company

- Changing mindset of machine breakdown
- Enhanced ownership of employees
- Enhanced teamwork
- Improvement in house keeping
- Improvement in knowledge
- Improvement in skills of operators and technicians
- Improvement in motivation of improvement studies
- Improvement in machine conditions

4. Key to our Manufacturing Excellence

The key to Manufacturing Excellence is continuous improvement in all areas with all employees in the company.

5. Contact

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