



TECHNICAL CATALOGUE

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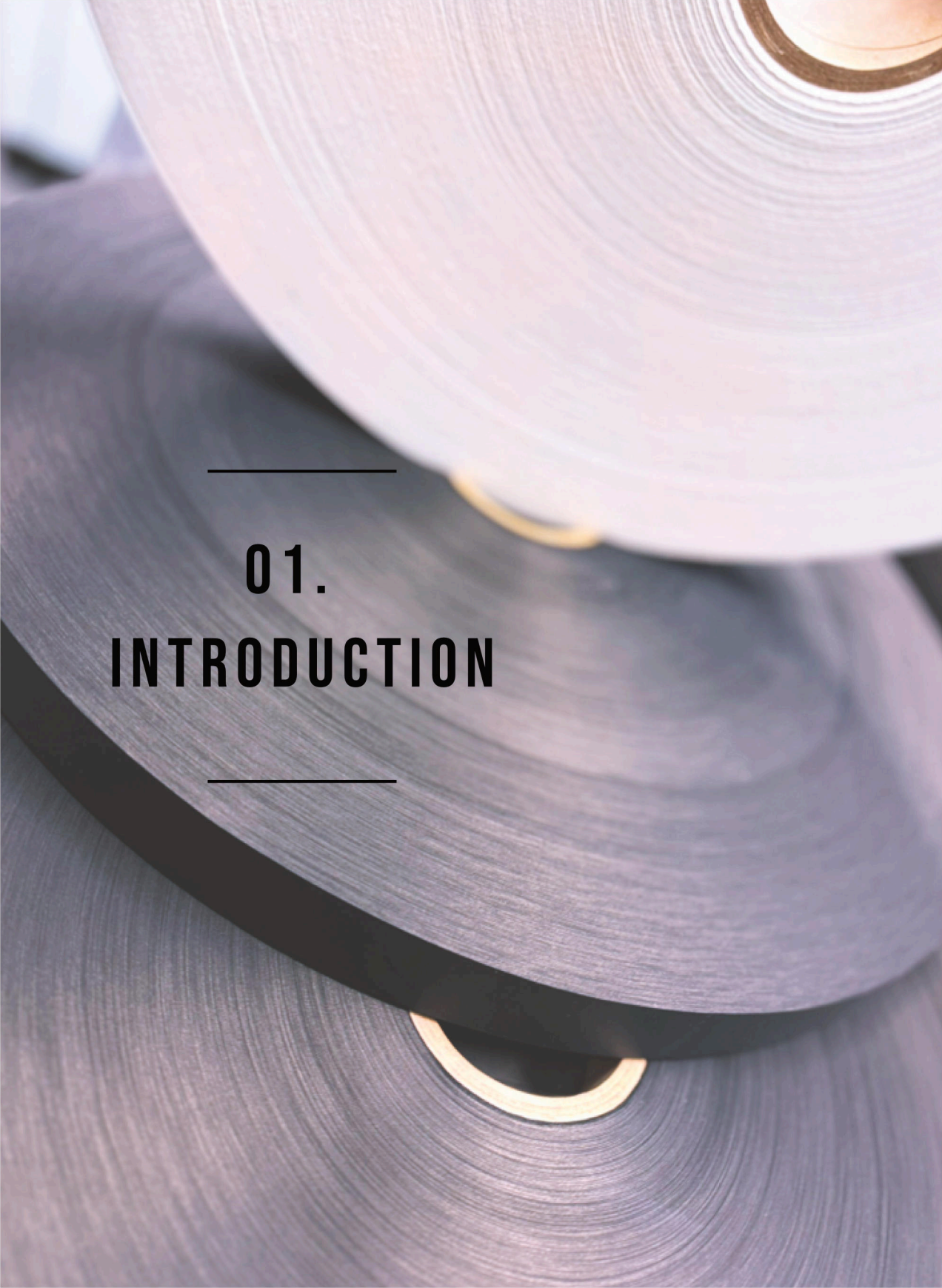
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01.

INTRODUCTION

INTRODUCTION

FORI Group is an overarching organization, integrating several business systems and activities: production, trade and engineering.

Our trademark is being open to new business opportunities and international co-operation, while the Group's key objectives are strategic and capital ties within the Group as well as efficient economy and organization.

Our cable tapes are sold worldwide under the TOP TAPES brand. Our complete product range assures that we can offer cable manufacturers tapes for various cable designs that meet their high needs and demands.





IT IS ALL ABOUT TOP TAPES

TECHNOLOGIES & MATERIALS:

INPUT:

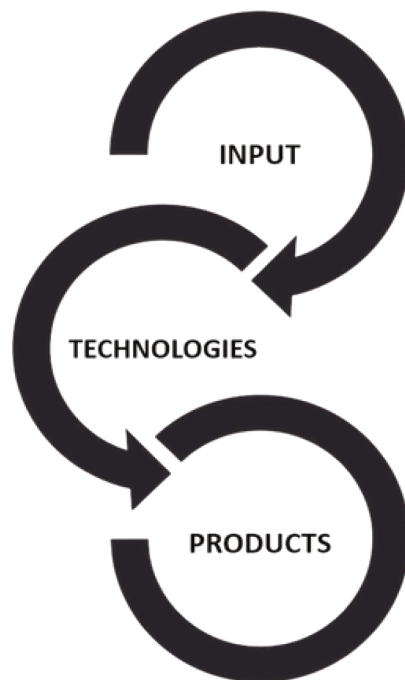
Different materials such as nonwovens, woven fabrics, absorbent powder, nets, carbon black, etc.

TECHNOLOGIES:

Coating with carbon black, superabsorbent coating / lamination, slitting and packaging.

OUTPUT:

Tapes for different applications in land and submarine power cables (LV, MV, HV, EHV), telecom, optical, etc.



APPLICATION

The Cable Unit of Fori Group's Technical Textile Division meets a wide range of high-quality customer requirements, including tensile strength, swelling speed and height, conductivity, elongation, thickness, width, and both inner and outer diameters.

APPLICATION:

- LV, MV, HV, EHV power cables for land and submarine cables
- General binding, bedding and separating:
 - Copper telephone cables
 - Control cables
 - Fibre optic cables

FUNCTION:

- General water-blocking in power, copper and fibre optic cables
- Moisture barriers (to prevent water from penetrating the cable core)
- Swelling action (forming a physical barrier that blocks further moisture movement)
- Cable protection (protecting sensitive cable components)
- Maintaining cable integrity (by preventing water migration, they help maintain the mechanical and electrical integrity of the cable over time)
- To prevent compound intrusion
- To prevent jelly migration





02. PRODUCT PORTFOLIO

TOP TAPES PRODUCTS

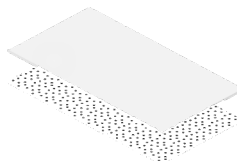
NON-CONDUCTIVE TAPES

NON-CONDUCTIVE TAPES



←-----Non-woven polyester tape

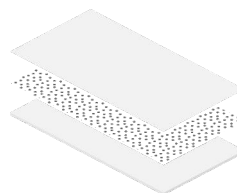
NON-CONDUCTIVE WATER-BLOCKING TAPES - SINGLE LAYER



←----- Non-woven polyester tape

←----- Super-absorbent powder

NON-CONDUCTIVE WATER-BLOCKING TAPES

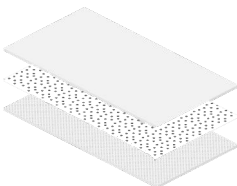


←----- Non-woven polyester tape

←----- Super-absorbent powder

←----- Non-woven polyester tape

NON - CONDUCTIVE WATER-BLOCKING NEEDLE-PUNCHED (BUFFERING) TAPES



←----- Non-woven polyester tape

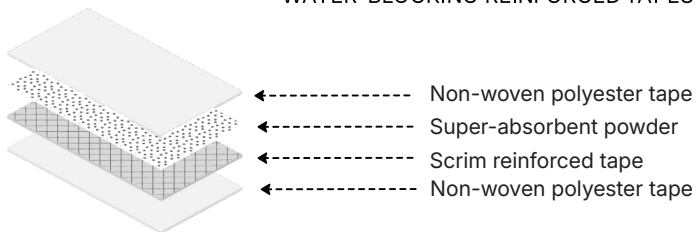
←----- Super-absorbent powder

←----- Non-woven polyester needle-punched tape

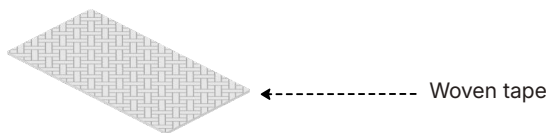
TOP TAPES PRODUCTS

NON-CONDUCTIVE TAPES

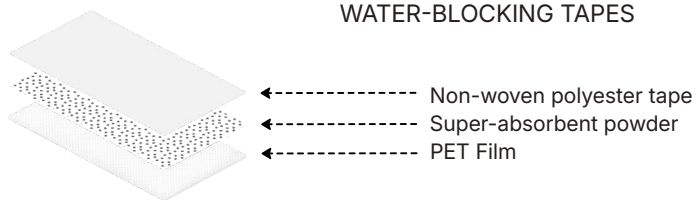
NON-CONDUCTIVE WATER-BLOCKING REINFORCED TAPES



NON-CONDUCTIVE WOVEN TAPES



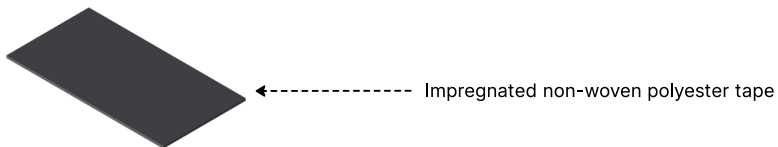
NON-CONDUCTIVE LAMINATED WATER-BLOCKING TAPES



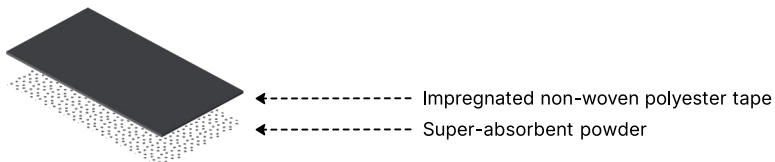
TOP TAPES PRODUCTS

SEMI-CONDUCTIVE TAPES

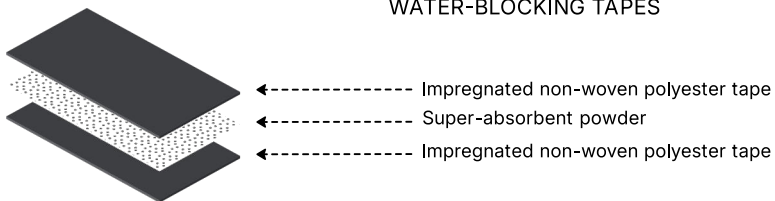
SEMI-CONDUCTIVE TAPES



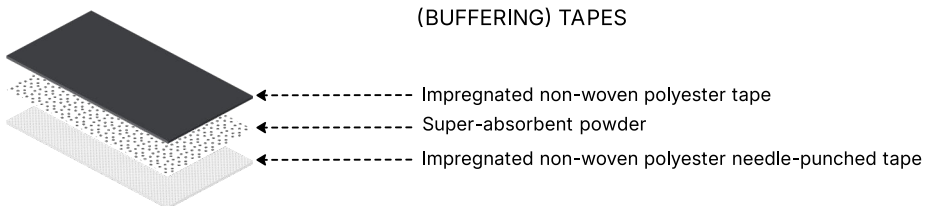
SEMI-CONDUCTIVE WATER-BLOCKING TAPES - SINGLE LAYER



SEMI-CONDUCTIVE WATER-BLOCKING TAPES



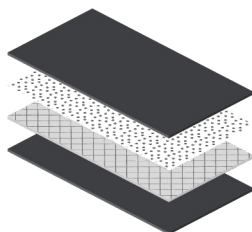
SEMI-CONDUCTIVE WATER-BLOCKING NEEDLE-PUNCHED (BUFFERING) TAPES



TOP TAPES PRODUCTS

SEMI-CONDUCTIVE TAPES

SEMI-CONDUCTIVE WATER-BLOCKING REINFORCED TAPES



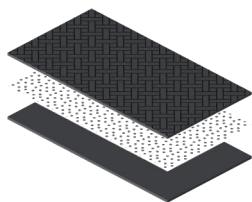
- ←----- Impregnated non-woven polyester tape
- ←----- Super-absorbent powder
- ←----- Scrim reinforced layer
- ←----- Impregnated non-woven polyester tape

SEMI-CONDUCTIVE WOVEN TAPES



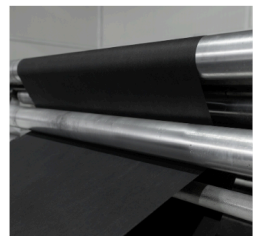
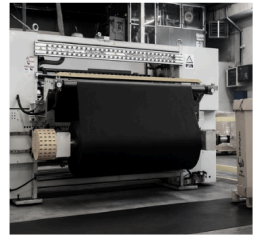
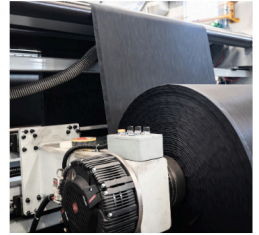
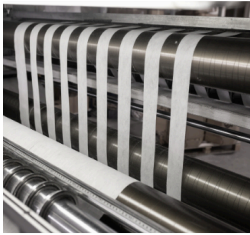
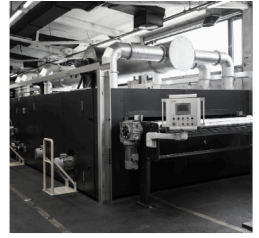
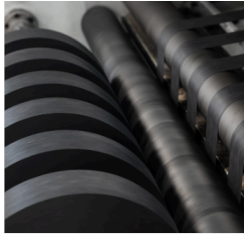
- ←----- Impregnated woven tape

SEMI-CONDUCTIVE WATER-BLOCKING WOVEN TAPES



- ←----- Impregnated woven tape
- ←----- Super-absorbent powder
- ←----- Impregnated non-woven polyester tape

EXPLORE TOP TAPES



03.
TECHNICAL
SPECIFICATIONS



**"OUR LABORATORIES.
YOUR PERFECT QUALITY".**

1. Binding/Bedding/Separating

SEMI-CONDUCTIVE TAPES: (metric units)

Application:

Used for general binding, bedding, and layer separation in MV, HV, and EHV power cables

Used under metallic screens or armoring layers

Used to ensure a smooth and even surface for subsequent cable layers

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/cm]	Elongation [%]	Surface resistance [Ω]	Volume resistivity [Ω·cm]
TTO C130	30 ± 10	0,20 ± 0,05	≥ 22	≥ 10	< 1000	< 1·10 ⁵
TTO C150	50 ± 10	0,25 ± 0,05	≥ 25	≥ 10	< 1000	< 1·10 ⁵
TTO C170	70 ± 10	0,35 ± 0,05	≥ 40	≥ 10	< 1000	< 1·10 ⁵
TTO C170 K	70 ± 20	0,20 ± 0,05	≥ 35	≥ 10	< 1000	< 1·10 ⁵
TTO C190 K	90 ± 20	0,25 ± 0,05	≥ 50	≥ 10	< 1000	< 1·10 ⁵
TTO C1080 W Woven	80 ± 10	0,10 ± 0,03	≥ 100	≥ 20	< 1000	< 1·10 ⁵
TTO C1100 W Woven	100 ± 10	0,13 ± 0,03	≥ 130	≥ 20	< 1000	< 1·10 ⁵
TTO C1170 W Teton	170 ± 20	0,20 ± 0,03	≥ 200	≥ 20	< 1000	< 1·10 ⁵

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.

1. Binding/Bedding/Separating SEMI-CONDUCTIVE TAPES: (imperial units)

Application:

Used for general binding, bedding, and layer separation in MV, HV, and EHV power cables

Used under metallic screens or armoring layers

Used to ensure a smooth and even surface for subsequent cable layers

Tape	Weight [lbs./yd ²]	Thickness [inch]	Tensile strength [lb/in]	Elongation [%]	Surface resistance [Ω]	Volume resistivity [MΩ·cm]
TTO C 130	0.055 ± 0.018	0.008 ± 0.002	≥ 12.56	≥ 10	< 1000	< 0.1
TTO C 150	0.092 ± 0.018	0.010 ± 0.002	≥ 14.27	≥ 10	< 1000	< 0.1
TTO C 170	0.129 ± 0.018	0.014 ± 0.002	≥ 22.84	≥ 10	< 1000	< 0.1
TTO C 170 K	0.129 ± 0.037	0.008 ± 0.002	≥ 19.98	≥ 10	< 1000	< 0.1
TTO C 190 K	0.166 ± 0.037	0.010 ± 0.002	≥ 28.55	≥ 10	< 1000	< 0.1
TTO C 1080 W Woven	0.147 ± 0.018	0.004 ± 0.001	≥ 57.10	≥ 20	< 1000	< 0.1
TTO C 1100 W Woven	0.184 ± 0.018	0.005 ± 0.001	≥ 74.23	≥ 20	< 1000	< 0.1
TTO C 1170 W Tetonon	0.313 ± 0.037	0.008 ± 0.001	≥ 114.20	≥ 20	< 1000	< 0.1

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.

2. SEMI-CONDUCTIVE WATER-BLOCKING TAPES DOUBLE LAYER: (metric units)

Application:

For MV, HV, and EHV power cables under the neutral screen (wires or tapes)

Under armoring wires or metallic tapes

Under radial water barriers (lead, copper, steel, aluminum)

Beneath extruded sheaths

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/cm]	Elongation [%]	Swelling height [mm/3.min]	Surface resistance [Ω]	Volume resistivity [Ω·cm]
TTO C 203	80 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 3	< 1500	< 1·10 ⁶
TTO C 203 WK	145 ± 30	0,25 ± 0,05	≥ 130	≥ 20	≥ 3	< 1500	< 1·10 ⁶
TTO C 203 W	145 ± 30	0,30 ± 0,05	≥ 130	≥ 20	≥ 3	< 1500	< 1·10 ⁶
TTO C 205 W	150 ± 30	0,30 ± 0,05	≥ 130	≥ 20	≥ 5	< 1500	< 1·10 ⁶
TTO C 205 WT	200 ± 30	0,30 ± 0,05	≥ 220	≥ 20	≥ 5	< 1500	< 1·10 ⁶
TTO C 206	100 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 6	< 1500	< 1·10 ⁶
TTO C 2061	100 ± 20	0,30 ± 0,05	≥ 25	≥ 10	≥ 6	< 1500	< 1·10 ⁶
TTO C 206 B	270 ± 40	2,0 ± 0,6	≥ 40	≥ 10	≥ 6	< 1500	< 1·10 ⁶
TTO C 207	100 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 7	< 1500	< 1·10 ⁶
TTO C 207 TT	170 ± 40	0,40 ± 0,10	≥ 90	≥ 10	≥ 7	< 1500	< 1·10 ⁶
TTO C 208	100 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 8	< 1500	< 1·10 ⁶
TTO C 208 K	100 ± 20	0,30 ± 0,05	≥ 35	≥ 10	≥ 8	< 1500	< 1·10 ⁶
TTO C 208 KK	100 ± 20	0,25 ± 0,05	≥ 35	≥ 10	≥ 8	< 1500	< 1·10 ⁶
TTO C 208 T	115 ± 20	0,35 ± 0,05	≥ 45	≥ 10	≥ 8	< 1500	< 1·10 ⁶
TTO C 210	110 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 10	< 1500	< 1·10 ⁶
TTO C 210 K	110 ± 20	0,30 ± 0,05	≥ 35	≥ 10	≥ 10	< 1500	< 1·10 ⁶
TTO C 2105	120 ± 30	0,50 ± 0,10	≥ 40	≥ 10	≥ 10	< 1500	< 1·10 ⁶

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

2. SEMI-CONDUCTIVE WATER-BLOCKING TAPES (DOUBLE LAYER): (imperial units)

Application:

For MV, HV, and EHV power cables under the neutral screen (wires or tapes)

Under armoring wires or metallic tapes

Under radial water barriers (lead, copper, steel, aluminum)

Beneath extruded sheaths

Tape	Weight [lbs./yd ²]	Thickness [inch]	Tensile strength [lb/in]	Elongation [%]	Swelling height [in/3.min]	Surface resistance [Ω]	Volume resistivity [MΩ·cm]
TTO C 203	0.147 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.118	< 1500	< 1
TTO C 203 WK	0.267 ± 0.055	0.010 ± 0.002	≥ 74.23	≥ 20	≥ 0.118	< 1500	< 1
TTO C 203 W	0.267 ± 0.055	0.012 ± 0.002	≥ 74.23	≥ 20	≥ 0.118	< 1500	< 1
TTO C 205 W	0.277 ± 0.055	0.012 ± 0.002	≥ 74.23	≥ 20	≥ 0.197	< 1500	< 1
TTO C 205 WT	0.369 ± 0.055	0.012 ± 0.002	≥ 125.62	≥ 20	≥ 0.197	< 1500	< 1
TTO C 206	0.184 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.236	< 1500	< 1
TTO C 2061	0.184 ± 0.037	0.012 ± 0.002	≥ 14.27	≥ 10	≥ 0.236	< 1500	< 1
TTO C 206 B	0.498 ± 0.074	0.079 ± 0.024	≥ 22.84	≥ 10	≥ 0.236	< 1500	< 1
TTO C 207	0.184 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.275	< 1500	< 1
TTO C 207 TT	0.313 ± 0.074	0.016 ± 0.004	≥ 51.39	≥ 10	≥ 0.275	< 1500	< 1
TTO C 208	0.184 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.315	< 1500	< 1
TTO C 208 K	0.184 ± 0.037	0.012 ± 0.002	≥ 19.98	≥ 10	≥ 0.315	< 1500	< 1
TTO C 208 KK	0.184 ± 0.037	0.010 ± 0.002	≥ 19.98	≥ 10	≥ 0.315	< 1500	< 1
TTO C 208 T	0.212 ± 0.037	0.014 ± 0.002	≥ 25.69	≥ 10	≥ 0.315	< 1500	< 1
TTO C 210	0.203 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.394	< 1500	< 1
TTO C 210 K	0.221 ± 0.037	0.012 ± 0.002	≥ 19.98	≥ 10	≥ 0.394	< 1500	< 1
TTO C 2105	0.221 ± 0.055	0.020 ± 0.004	≥ 22.84	≥ 10	≥ 0.394	< 1500	< 1

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

2. SEMI-CONDUCTIVE WATER-BLOCKING TAPES

DOUBLE LAYER: (metric units)

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/cm]	Elongation [%]	Swelling height [mm/3.min]	Surface resistance [Ω]	Volume resistivity [Ω·cm]
TTO C 210 T	115 ± 20	0,35 ± 0,05	≥ 45	≥ 10	≥ 10	< 1500	< 1·10 ⁶
TTO C 210 TT	210 ± 30	0,40 ± 0,05	≥ 100	≥ 10	≥ 10	< 1500	< 1·10 ⁶
TTO C 212	110 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 12	< 1500	< 1·10 ⁶
TTO C 2121	110 ± 20	0,35 ± 0,05	≥ 25	≥ 10	≥ 12	< 1500	< 1·10 ⁶
TTO C 212 B	270 ± 40	2,0 ± 0,6	≥ 40	≥ 10	≥ 12	< 1500	< 1·10 ⁶
TTO C 212 TT	210 ± 30	0,40 ± 0,05	≥ 100	≥ 10	≥ 12	< 1500	< 1·10 ⁶
TTO C 2124 T	125 ± 30	0,40 ± 0,05	≥ 45	≥ 10	≥ 12	< 1500	< 1·10 ⁶
TTO C 212 T	115 ± 20	0,35 ± 0,05	≥ 45	≥ 10	≥ 12	< 1500	< 1·10 ⁶
TTO C 215	120 ± 30	0,35 ± 0,05	≥ 35	≥ 10	≥ 15	< 1500	< 1·10 ⁶
TTO C 215 B	270 ± 40	2,0 ± 0,6	≥ 40	≥ 10	≥ 15	< 1500	< 1·10 ⁶
TTO C 215 T	130 ± 30	0,35 ± 0,05	≥ 45	≥ 10	≥ 15	< 1500	< 1·10 ⁶
TTO C 2155	145 ± 30	0,50 ± 0,10	≥ 40	≥ 10	≥ 15	< 1500	< 1·10 ⁶
TTO C 218	130 ± 30	0,35 ± 0,05	≥ 35	≥ 10	≥ 18	< 1500	< 1·10 ⁶
TTO C 2185	140 ± 30	0,50 ± 0,10	≥ 40	≥ 10	≥ 18	< 1500	< 1·10 ⁶
TTO C 220	150 ± 30	0,40 ± 0,05	≥ 35	≥ 10	≥ 20	< 1500	< 1·10 ⁶
TTO C 2205	150 ± 30	0,50 ± 0,10	≥ 40	≥ 10	≥ 20	< 1500	< 1·10 ⁶
TTO CS 2305*	220 ± 40	0,60 ± 0,10	≥ 55	≥ 10	≥ 3	< 1500	< 1·10 ⁶
TTO CS 2035 HS*	200 ± 40	0,50 ± 0,10	≥ 50	≥ 10	≥ 3,3	< 1500	< 1·10 ⁶
TTO CS 2024 W*	270 ± 40	0,40 ± 0,10	≥ 230	≥ 10	≥ 2	< 1500	< 1·10 ⁶

*Swelling tests are done with 33 g/l NaCl

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

2. SEMI-CONDUCTIVE WATER-BLOCKING TAPES

DOUBLE LAYER: (imperial units)

Tape	Weight [lbs./yd ²]	Thickness [inch]	Tensile strength [lb/in]	Elongation [%]	Swelling height [in/3.min]	Surface resistance [Ω]	Volume resistivity [MΩ·cm]
TTO C210 T	0.212 ± 0.037	0.014 ± 0.002	≥ 25.69	≥ 10	≥ 0.394	< 1500	< 1
TTO C210 TT	0.387 ± 0.055	0.016 ± 0.002	≥ 57.10	≥ 10	≥ 0.394	< 1500	< 1
TTO C212	0.203 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.472	< 1500	< 1
TTO C2121	0.203 ± 0.037	0.014 ± 0.002	≥ 14.27	≥ 10	≥ 0.472	< 1500	< 1
TTO C212 B	0.498 ± 0.074	0.079 ± 0.024	≥ 22.84	≥ 10	≥ 0.472	< 1500	< 1
TTO C212 TT	0.387 ± 0.055	0.016 ± 0.002	≥ 57.10	≥ 10	≥ 0.472	< 1500	< 1
TTO C2124 T	0.230 ± 0.055	0.016 ± 0.002	≥ 25.69	≥ 10	≥ 0.472	< 1500	< 1
TTO C212 T	0.212 ± 0.037	0.014 ± 0.002	≥ 25.69	≥ 10	≥ 0.472	< 1500	< 1
TTO C215	0.221 ± 0.055	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.590	< 1500	< 1
TTO C215 B	0.498 ± 0.074	0.079 ± 0.024	≥ 22.84	≥ 10	≥ 0.590	< 1500	< 1
TTO C215 T	0.240 ± 0.055	0.014 ± 0.002	≥ 25.69	≥ 10	≥ 0.590	< 1500	< 1
TTO C2155	0.267 ± 0.055	0.020 ± 0.004	≥ 22.84	≥ 10	≥ 0.590	< 1500	< 1
TTO C218	0.240 ± 0.055	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.708	< 1500	< 1
TTO C2185	0.258 ± 0.055	0.020 ± 0.004	≥ 22.84	≥ 10	≥ 0.708	< 1500	< 1
TTO C220	0.276 ± 0.055	0.016 ± 0.002	≥ 19.98	≥ 10	≥ 0.787	< 1500	< 1
TTO C2205	0.276 ± 0.055	0.020 ± 0.004	≥ 22.84	≥ 10	≥ 0.787	< 1500	< 1
TTO CS 2305*	0.405 ± 0.055	0.024 ± 0.004	≥ 31.40	≥ 10	≥ 0.118	< 1500	< 1
TTO CS 2035 HS*	0.369 ± 0.055	0.020 ± 0.004	≥ 28.55	≥ 10	≥ 0.130	< 1500	< 1
TTO CS 2024 W*	0.398 ± 0.055	0.016 ± 0.004	≥ 131.33	≥ 10	≥ 0.078	< 1500	< 1

*Swelling tests are done with 33 g/l NaCl

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

3. Binding/ bedding/ separating

NON-CONDUCTIVE TAPES: (metric units)

Application:

Used for general binding, bedding, and layer separation in LV and MV power cables

Used as insulating layer to prevent electrical conduction between cable components

Ensures protection and mechanical separation of cable layers

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/cm]	Elongation [%]
TTO 120-05	20 ± 5	0,05 ± 0,03	≥ 14	≥ 9
TTO 125	25 ± 5	0,18 ± 0,05	≥ 18	≥ 10
TTO 135	35 ± 5	0,26 ± 0,05	≥ 25	≥ 10
TTO 150-12	50 ± 10	0,12 ± 0,05	≥ 30	≥ 10
TTO 1080 W Woven	80 ± 10	0,13 ± 0,05	≥ 100	≥ 20

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.

3. Binding/ bedding/ separating

NON-CONDUCTIVE TAPES: (imperial units)

Application:

Used for general binding, bedding, and layer separation in LV and MV power cables

Used as insulating layer to prevent electrical conduction between cable components

Ensures protection and mechanical separation of cable layers

Tape	Weight [lbs/yd ²]	Thickness [inch]	Tensile strength [lb/in]	Elongation [%]
TTO 120-05	0.037 ± 0.009	0.002 ± 0.001	≥ 8.00	≥ 9
TTO 125	0.046 ± 0.009	0.007 ± 0.002	≥ 10.27	≥ 10
TTO 135	0.065 ± 0.009	0.010 ± 0.002	≥ 14.27	≥ 10
TTO 150-12	0.092 ± 0.018	0.005 ± 0.002	≥ 17.13	≥ 10
TTO 1080 W Woven	0.147 ± 0.018	0.005 ± 0.002	≥ 57.10	≥ 20

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.

4. NON-CONDUCTIVE WATER-BLOCKING TAPES (DOUBLE LAYER): (metric units)

Application:

General water-blocking in power, copper, and fibre optic cables

Applied in the screen area of power cables, either over open metal screens, over concentric neutrals, or under radial water barriers – where no electrical contact with the metal screen is required

Used in communication cables as an alternative to filling or flooding compounds

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/cm]	Elongation [%]	Swelling height [mm/3.min]
TTO 203	60 ± 20	0,30 ± 0,05	≥ 35	≥ 10	≥ 3
TTO 2031	65 ± 20	0,30 ± 0,05	≥ 25	≥ 10	≥ 3
TTO 203 KK	65 ± 20	0,25 ± 0,05	≥ 35	≥ 10	≥ 3
TTO 206	80 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 6
TTO 2061	80 ± 20	0,30 ± 0,05	≥ 25	≥ 10	≥ 6
TTO 206 K	80 ± 20	0,30 ± 0,05	≥ 35	≥ 10	≥ 6
TTO 2061 K	80 ± 20	0,30 ± 0,05	≥ 25	≥ 10	≥ 6
TTO 206 KK	80 ± 20	0,25 ± 0,05	≥ 35	≥ 10	≥ 6
TTO 2075	95 ± 20	0,50 ± 0,10	≥ 50	≥ 10	≥ 7
TTO 208	80 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 8
TTO 2085	95 ± 20	0,50 ± 0,10	≥ 40	≥ 10	≥ 8
TTO 208 T	105 ± 20	0,35 ± 0,05	≥ 40	≥ 10	≥ 8
TTO 210	90 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 10
TTO 210 K	90 ± 20	0,30 ± 0,05	≥ 35	≥ 10	≥ 10
TTO 212	100 ± 20	0,35 ± 0,05	≥ 35	≥ 10	≥ 12

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

4. NON-CONDUCTIVE WATER-BLOCKING TAPES (DOUBLE LAYER): (imperial units)

Application:

General water-blocking in power, copper, and fibre optic cables

Applied in the screen area of power cables, either over open metal screens, over concentric neutrals, or under radial water barriers – where no electrical contact with the metal screen is required

Used in communication cables as an alternative to filling or flooding compounds

Tape	Weight [lbs/yd ²]	Thickness [inch]	Tensile strength [lb/in]	Elongation [%]	Swelling height [in/3.min]
TTO 203	0.111 ± 0.037	0.012 ± 0.002	≥ 19.98	≥ 10	≥ 0.118
TTO 2031	0.120 ± 0.037	0.012 ± 0.002	≥ 14.27	≥ 10	≥ 0.118
TTO 203 KK	0.120 ± 0.037	0.010 ± 0.002	≥ 19.98	≥ 10	≥ 0.118
TTO 206	0.147 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.236
TTO 2061	0.147 ± 0.037	0.012 ± 0.002	≥ 14.27	≥ 10	≥ 0.236
TTO 206 K	0.147 ± 0.037	0.012 ± 0.002	≥ 19.98	≥ 10	≥ 0.236
TTO 2061 K	0.147 ± 0.037	0.012 ± 0.002	≥ 14.27	≥ 10	≥ 0.236
TTO 206 KK	0.147 ± 0.037	0.010 ± 0.002	≥ 19.98	≥ 10	≥ 0.236
TTO 2075	0.175 ± 0.037	0.020 ± 0.004	≥ 28.55	≥ 10	≥ 0.275
TTO 208	0.147 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.315
TTO 2085	0.175 ± 0.037	0.020 ± 0.004	≥ 22.84	≥ 10	≥ 0.315
TTO 208 T	0.194 ± 0.037	0.014 ± 0.002	≥ 22.84	≥ 10	≥ 0.315
TTO 210	0.166 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.394
TTO 210 K	0.166 ± 0.037	0.012 ± 0.002	≥ 19.98	≥ 10	≥ 0.394
TTO 212	0.184 ± 0.037	0.014 ± 0.002	≥ 19.98	≥ 10	≥ 0.472

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

4. NON-CONDUCTIVE WATER-BLOCKING TAPES (DOUBLE LAYER): (metric units)

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/cm]	Elongation [%]	Swelling height [mm/3.min]
TTO 212 K	100 ± 20	0,30 ± 0,05	≥ 35	≥10	≥ 12
TTO 2121 K	100 ± 20	0,30 ± 0,05	≥ 30	≥10	≥ 12
TTO 212 TK-HS	135 ± 30	0,30 ± 0,05	≥ 55	≥10	≥ 12
TTO 212 N	145 ± 30	0,40 ± 0,10	≥ 100	≥10	≥ 12
TTO 2123 TT	170 ± 30	0,35 ± 0,05	≥ 80	≥10	≥ 12
TTO 213 N	150 ± 30	0,40 ± 0,10	≥ 100	≥10	≥ 13
TTO 215	105 ± 20	0,40 ± 0,05	≥ 35	≥10	≥ 15
TTO 215 K	105 ± 20	0,30 ± 0,05	≥ 35	≥10	≥ 15
TTO 2155	130 ± 30	0,50 ± 0,10	≥ 40	≥10	≥ 15
TTO 2165	140 ± 30	0,60 ± 0,10	≥ 60	≥10	≥ 16
TTO 216 D	130 ± 30	0,50 ± 0,10	≥ 50	≥ 12	≥ 16
TTO 216 TK-HS	125 ± 30	0,30 ± 0,05	≥ 60	≥ 10	≥ 16
TTO 216 B	200 ± 40	1,80 ± 0,40	≥ 25	≥ 9	≥ 16
TTO 2185	130 ± 30	0,50 ± 0,10	≥ 45	≥ 10	≥ 18
TTO 2185 T	130 ± 30	0,45 ± 0,10	≥ 45	≥ 10	≥ 18
TTO 2186	140 ± 30	0,60 ± 0,10	≥ 55	≥ 10	≥ 18
TTO 220	130 ± 30	0,40 ± 0,05	≥ 35	≥ 10	≥ 20
TTO 2205	140 ± 30	0,50 ± 0,10	≥ 40	≥ 10	≥ 20
TTO S 2034*	185 ± 40	0,40 ± 0,10	≥ 25	≥ 3	≥ 2,7

*Swelling tests are done with 33 g/l NaCl

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

4. NON-CONDUCTIVE WATER-BLOCKING TAPES (DOUBLE LAYER): (imperial units)

Tape	Weight [lbs/yd ²]	Thickness [inch]	Tensile strength [lb/in]	Elongation [%]	Swelling height [in/3.min]
TTO 212 K	0.184 ± 0.037	0.012 ± 0.002	≥ 19.98	≥ 10	≥ 0.472
TTO 2121 K	0.184 ± 0.037	0.012 ± 0.002	≥ 17.13	≥ 10	≥ 0.472
TTO 212 TK-HS	0.249 ± 0.055	0.012 ± 0.002	≥ 31.40	≥ 10	≥ 0.472
TTO 212 N	0.267 ± 0.055	0.016 ± 0.004	≥ 57.10	≥ 10	≥ 0.472
TTO 2123 TT	0.313 ± 0.055	0.014 ± 0.002	≥ 45.68	≥ 10	≥ 0.472
TTO 213 N	0.277 ± 0.055	0.016 ± 0.004	≥ 57.10	≥ 10	≥ 0.512
TTO 215	0.194 ± 0.037	0.016 ± 0.002	≥ 19.98	≥ 10	≥ 0.590
TTO 215 K	0.194 ± 0.037	0.012 ± 0.002	≥ 19.98	≥ 10	≥ 0.590
TTO 2155	0.240 ± 0.055	0.020 ± 0.004	≥ 22.84	≥ 10	≥ 0.590
TTO 2165	0.258 ± 0.055	0.024 ± 0.004	≥ 34.26	≥ 10	≥ 0.630
TTO 216 D	0.240 ± 0.055	0.020 ± 0.004	≥ 28.55	≥ 12	≥ 0.630
TTO 216 TK-HS	0.230 ± 0.055	0.012 ± 0.002	≥ 34.26	≥ 10	≥ 0.630
TTO 216 B	0.368 ± 0.074	0.070 ± 0.015	≥ 14.27	≥ 9	≥ 0.630
TTO 2185	0.240 ± 0.055	0.020 ± 0.004	≥ 25.69	≥ 10	≥ 0.708
TTO 2185 T	0.240 ± 0.055	0.018 ± 0.002	≥ 25.69	≥ 10	≥ 0.708
TTO 2186	0.258 ± 0.055	0.024 ± 0.004	≥ 31.40	≥ 10	≥ 0.708
TTO 220	0.240 ± 0.055	0.016 ± 0.002	≥ 19.98	≥ 10	≥ 0.787
TTO 2205	0.258 ± 0.055	0.020 ± 0.004	≥ 22.84	≥ 10	≥ 0.787
TTO S2034*	0.341 ± 0.074	0.016 ± 0.004	≥ 14.27	≥ 3	≥ 0.106

*Swelling tests are done with 33 g/l NaCl

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

5. SINGLE LAYER: (metric units)

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/cm]	Elongation [%]	Swelling height [mm/3.min]
TTO E102	30 ± 10	0,15 ± 0,05	≥ 25	≥ 8	≥ 2
TTO E104	35 ± 10	0,25 ± 0,05	≥ 25	≥ 8	≥ 4

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

6. NON-CONDUCTIVE WATER-BLOCKING SWELLABLE TAPE (LAMINATED WITH PET FILM): (metric units)

Application:

Used in telephone cables

Used in control cables

Used in fibre optic cables

Preventing compound intrusion

Preventing jelly migration

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/cm]	Elongation [%]	Swelling height [mm/3.min]
TTO F 2061/36	120 ± 20	0,30 ± 0,05	≥ 40	≥ 8	≥ 6
TTO F 212/36	130 ± 20	0,30 ± 0,05	≥ 40	≥ 8	≥ 12

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

5. SINGLE LAYER: (imperial units)

Tape	Weight [lbs/yd ²]	Thickness [inch]	Tensile strength [lb/in]	Elongation [%]	Swelling height [in/3.min]
TTO E102	0.055 ± 0.018	0.006 ± 0.002	≥ 14.27	≥ 8	≥ 0.078
TTO E104	0.065 ± 0.018	0.010 ± 0.002	≥ 14.27	≥ 8	≥ 0.157

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

6. NON-CONDUCTIVE WATER-BLOCKING SWELLABLE TAPE (LAMINATED WITH PET FILM): (imperial units)

Application:

Used in telephone cables

Used in control cables

Used in fibre optic cables

Preventing compound intrusion

Preventing jelly migration

Tape	Weight [lbs/yd ²]	Thickness [inch]	Tensile strength [lb/in]	Elongation [%]	Swelling height [in/3.min]
TTO F2061/36	0.221 ± 0.037	0.012 ± 0.002	≥ 22.84	≥ 8	≥ 0.236
TTO F212/36	0.240 ± 0.028	0.012 ± 0.002	≥ 22.84	≥ 8	≥ 0.472

Splices must be confirmed by the customer in accordance with TOP TAPES splice catalogue.
If requested we can provide information for swelling height in 1st min

7. PET FILM TAPE: (metric units)

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/mm ²]	Elongation [%]
TTO PET F 136	55 ± 5	0,036 ± 0,003	≥ 40	≥ 70
TTO PET F 150	70 ± 5	0,050 ± 0,003	≥ 70	≥ 70
TTO PET F175	105 ± 5	0,075 ± 0,005	≥ 70	≥ 70

8. WATER-BLOCKING YARN: (metric units)

Tape	Denier [D]	Linear density [m/kg]	Tensile strength [N]	Elongation at break [%]	Swelling amount [ml/g]	Thermal Stability Long Term (150°C, 24h) [ml/g]	Thermal Stability Short Term (230°C, 10min) [ml/g]
TTO WBY 3000D	3000	3000 ± 300	≥ 100	≥ 15	≥ 65	≥ 60	≥ 65
TTO WBY 4500D	4500	2000 ± 200	≥ 150	≥ 15	≥ 65	≥ 55	≥ 65
TTO WBY 9000D	9000	1000 ± 100	≥ 250	≥ 15	≥ 55	≥ 55	≥ 55

7. PET FILM TAPE: (imperial units)

Tape	Weight [lbs/yd ²]	Thickness [inch]	Tensile strength [MPa]	Elongation [%]
TTO PET F 136	0.101 ± .009	0.0014 ± 0.0001	≥ 40	≥ 70
TTO PET F 150	0.129 ± .009	0.0019 ± 0.0001	≥ 70	≥ 70
TTO PET F175	0.194 ± 0.009	0.0029 ± 0.0002	≥ 70	≥ 70

8. WATER-BLOCKING YARN: (imperial units)

Tape	Denier [D]	Linear density [yd/lb]	Tensile strength [lbs]	Elongation at break [%]	Swelling amount [fl oz/oz]	Thermal Stability Long Term (150°C, 24h) [fl oz/oz]	Thermal Stability Short Term (230°C, 10min) [fl oz/oz]
TTO WBY 3000D	3000	1488 ± 150	≥ 22.5	≥ 15	≥ 62.309	≥ 57	≥ 62
TTO WBY 4500D	4500	992 ± 100	≥ 33.7	≥ 15	≥ 62.309	≥ 52	≥ 62
TTO WBY 9000D	9000	496 ± 50	≥ 56.2	≥ 15	≥ 52.723	≥ 52	≥ 52

9. FIBERGLASS TAPE: (metric units)

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/mm ²]	Elongation [%]
TTO G100FR	100 ± 20	0,10 ± 0,03	≥ 200	≥ 4
TTO G140FR	140 ± 20	0,13 ± 0,03	≥ 200	≥ 4

10. PP FOAMED TAPE: (metric units)

Tape	Weight [g/m ²]	Thickness [mm]	Tensile strength [N/mm ²]	Elongation [%]
TTO PP120 F	60 ± 10	0,12 ± 0,02	≥ 80	≥ 10
TTO PP130 F	65 ± 10	0,13 ± 0,02	≥ 80	≥ 10
TTO PP 200 F	100 ± 10	0,20 ± 0,02	≥ 60	≥ 10

9. FIBERGLASS TAPE: (imperial units)

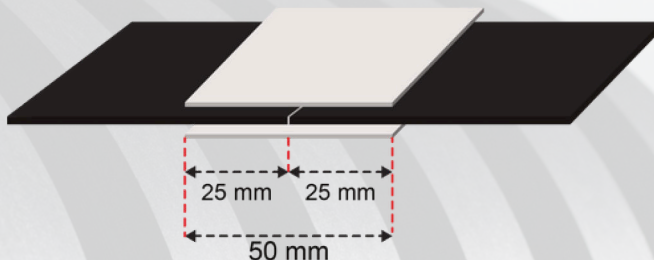
Tape	Weight [lbs/yd ²]	Thickness [inch]	Tensile strength [lb/inch]	Elongation [%]
TTO G100FR	0.184 ± 0.0369	0.0039 ± 0.001	≥ 57	≥ 4
TTO G140FR	0.258 ± 0.0369	0.0051 ± 0.001	≥ 57	≥ 4

10. PP FOAMED TAPE: (imperial units)

Tape	Weight [lbs/yd ²]	Thickness [inch]	Tensile strength [MPa]	Elongation [%]
TTO PP120 F	0.111 ± 0.018	0.0047 ± 0.00079	≥ 80	≥ 10
TTO PP130 F	0.120 ± 0.018	0.0051 ± 0.00079	≥ 80	≥ 10
TTO PP200 F	0.184 ± 0.018	0.0078 ± 0.00079	≥ 60	≥ 10

11. JOINTS:

CONTACT JOINTS: Used when minimal thickness increase at the joint is required. Common in thin tapes where a smooth surface is critical.



ADHESIVE TAPES FOR CONTACT JOINTS: (metric units)

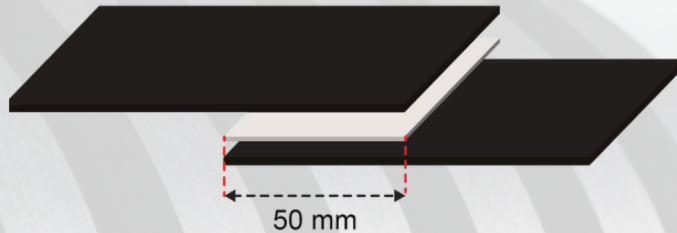
Adhesive tapes	Thickness [μm]	Tensile strength [N/cm]	Elongation [%]	Temperature resistance [°C]	
				Short term	Long term
Yellow tape (006003)	60	40	90	160	130
Transparent tape (008546)	85	70	100	200	130
Transparent tape (008270)	105	81	200	200	100

ADHESIVE TAPES FOR CONTACT JOINTS: (imperial units)

Adhesive tapes	Thickness [mils]	Tensile strength [lb/in]	Elongation [%]	Temperature resistance [°F]	
				Short term	Long Term
Yellow tape (006003)	2.36	22.84	90	320	266
Transparent tape (008546)	3.35	39.97	100	392	266
Transparent tape (008270)	4.13	46.25	200	392	212

11. JOINTS:

OVERLAP JOINTS: Provide stronger mechanical connection due to overlapping, often used in heavier materials, reinforcing tapes, or where additional bonding strength is necessary.



ADHESIVE TAPES FOR OVERLAP JOINTS: (metric units)

Adhesive tapes	Thickness [μm]	Tensile strength [N/cm]	Elongation [%]	Temperature resistance [°C]	
				Short term	Long term
Double sided tape (006666)	205	20	50	200	100
Transfer tape (006855) *	50	*	*	120	65

* Tensile strength and elongation values are not specified for this tape, as it is an adhesive transfer tape without a carrier backing.

ADHESIVE TAPES FOR OVERLAP JOINTS: (imperial units)

Adhesive tapes	Thickness [mils]	Tensile strength [lb/in]	Elongation [%]	Temperature resistance [°F]	
				Short term	Long Term
Double sided tape (006666)	8.01	11.42	50	392	212
Transfer tape (006855) *	1.97	*	*	248	149

* Tensile strength and elongation values are not specified for this tape, as it is an adhesive transfer tape without a carrier backing.

04.

**RECOGNITION AND
RELIABILITY**

SUSTAINABILITY

Corporate Sustainability Campaign

At Fori Group, sustainability is not just a responsibility — it's a strategic priority. Our Corporate Sustainability Program is built around key pillars:



Recyclable Inputs

From a materials standpoint, we have set environmental targets that promote the use of more sustainable and recyclable inputs.

This includes a shift toward environmentally friendly and recycled materials, such as monomaterial PES laminates that enable 100% recyclability, and replacing conventional film with recycled film.



ISO 45001 & ISO 50001

We are also in the process of implementing ISO 45001 and ISO 50001 management systems.

The latter is particularly aligned with our goal of reducing carbon emissions and enhancing energy performance, including the potential replacement of outdated machinery with more energy-efficient alternatives.



Life Cycle Assessment

We have already conducted a Life Cycle Assessment (LCA) for our average product, and we plan to expand this by calculating and verifying LCAs for each individual product as well.



Solar Panels Installation

A major future project is the installation of solar panels, scheduled for 2026, which will significantly contribute to our use of renewable energy sources.

CERTIFICATES

- ISO 9001 – Quality Management System
- IATF 16949:2016 – International Automotive Task Force
- ISO 14001 – Environmental Management Systems
- ISO 50001 – Energy Management
- ISO 45001 - Occupational Health and Safety Management Systems
- EcoVadis



REFERENCES

At the cable unit of Fori Group's Technical Textile Division, we are proud to be a trusted partner to most of the world's leading brands in the cable industry.

Our commitment to excellence has made us a preferred supplier for top-tier companies across the cable sector.



GLOBAL RECOGNITION



4 PRODUCTS GROUPS:



Laminated foams and other materials for automotive, railway and aircraft industry



Tapes for cable industry



Laminates, products for living, upholstery: mattresses, pillows, children's seats, absorbent pads



Laminates for building constructions industry, isolations

LET'S STAY CONNECTED



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