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Technical Documentation

TeckWrap Motion 180 & 190 Series®
Premium calendered vinyl film

Specification

Thickness of film (C=10 micron)	15-18C±0.5C
Thickness of film with background	20-23C±0.5C
Type of film	Calendered vinyl film with air channels
Colors	Black, white, silver, gold, red, wine red, pink, blue, light blue, dark blue, pearl blue, lake blue, green, apple green, military green, orange, purple, yellow, gray, dark gray, mint, brown, coffee brown, transparent
Glue:	Acrylic glue, transparent, origin: Taiwan. MSDS from Eternal Chemical Co. LTD, ETERAC 7055-1, Acrylic Resin solution, Acrylic polymers 39-41%, Toluene 22-26%, Ethyl Acetate 34-38%, odor: solvent odor, UN No. 1866, UN Proper shipping name: Resin Solution
Paper background:	White silicone-coated paper with double sided polyethylene coating 145 g./m2
Storing period:	Two years if stored in cooler temperatures +10°C to +20°C for optimal quality, relative humidity 50%, in original package, away from direct sun light, clean and dry place
Temperature range:	Application from+5°C to +40°C, usage from -50°C to +70°C
Expected exploitation period:	When applied on the recommended surfaces in climatic zone of Central Europe the exploitation period is more than 3 years. The final period depends on surface exploitation factors, color of the film and climatic conditions
Dimensional stability:	Shrinkage less than 0,20%, PVC, self-adhesive
Plastification:	between 25%-32%
Rupture strength:	33 mPAS
Tensile strain:	>50-80%
Package:	Roll width 152 cm, length 30 m, weight 16-18 kg

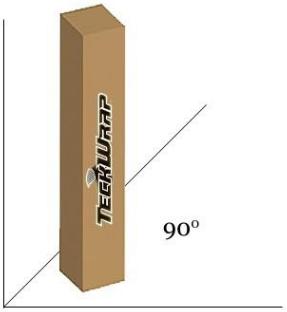
Technology

In the production of TeckWrap vinyl film calendering technology is used. Raw PVC material is painted, mixed, heated, extruded and rolled in hot calenders many times. As a result, thin film is produced. Despite of the fact that this calendering technology has some disadvantages when compared with cast technology, the technological process is not complicated, easily automatized and highly productive. That is why our company has the opportunity to produce and provide affordable vinyl film, and at the same time keeping high quality by managing production controlling manufacturing process. By using stable and high quality raw PVC the company produces different kinds of vinyl films in variety of colors and textures.

Storage

The rolls of TeckWrap vinyl films should be stored in vertical position in original boxes until there is a need to use them. If the roll is kept in horizontal position, dints and tightens may appear on its surface. Inasmuch as possible do not open roll until there is a need to use. The best conditions for storage are usual room temperature ~20°C, and humidity – 50%. In high temperatures, one can face malaxation of glue and it's run-out from drains. In high humidity vinyl is often deformed and warped.

It's restricted to store vinyl films close to source of heat or at places under direct sunlight. On the basis of above stated the best conditions for storage is dry and cool places, protected from direct UV.



Preparation and application

Before cutting vinyl films one should make following steps:

- Take a roll from its storage place.
- Keep it for 24 hours in the place where it will be cut in order to climatise the roll. The work with cold vinyl film in places with normal temperature can cause deformation of film. In 24 hour period roll should be kept in original package that protects it from humidity.
- The recommended temperature for wrapping of vinyl film is from +5°C to +30°C. In temperatures below our recommendation, adhesive properties of the vinyl can get weak and sticking of edges get hardened.

The applying of vinyl films on the following surfaces can lead to a problem, that's why one should take particular care and plan their usage carefully:

- Plastic elastic materials like polyvinyl chloride
- Weak binding surfaces like pile fabric or acrylic paint on car surfaces
- Rusty metal surfaces like iron, copper, brass, silver; some glass surfaces, surfaces with silicon or wax, dusty or grassy surfaces, porous surfaces
- Moist and/or cold surfaces for weak binding
- Irregular surfaces – crooked or non uniform / Freshly coated, lacquered, or painted surfaces should be allowed to stand for at least three weeks to allow complete curing

It's recommended to clean wrapped surfaces with non-aggressive detergents, that doesn't contain abrasive materials. Vinyl film can be cleaned with warm water adding soft non-alkalic soap. The glossy surfaces are cleaned easier than matte ones, and look more fashionable.

When a customer is experiencing problems with vinyl film (peeling, for example), most of the time they blame the vinyl producer. The problems related to low adhesiveness or other difficulties and defects can sometimes occur, but they are extremely rare. If customer has problems with vinyl wrapping, it is because of his/her refusal to follow instructions for application, wrong exploitation and wrong choice of the surface that is wrapped.

One should always check and prepare surface before application. When worn out surface is used one should check it for rust, peeling dust or peeling paint that must be mechanically removed. A car should be accurately washed and cleaned from chemical dust before application and the surface should dry completely. This is very important for surfaces with clinches and between panels. The water left in holes can easily cause the peeling. Sometimes washing with soap water doesn't help with grease, dust and rust. Strong contaminants like fuel oil residue can be cleaned by dissolvent or isopropyl alcohol.

To achieve wrapping quality the temperature of a surface and vinyl film must not be below 5°C. Take off the protective background paper from TeckWrap vinyl film. Place the film on the appropriate surface and slick it down intensively with squeegee in overlapping directions. The background paper should be taken off in 180° angle and should be parallel to the surface. Use heat gun or blow-dryer on the vinyl wrap when it rolls over the edge of a panel. After application keep surface at temperature over 20°C for about 30 minutes. Remember that earliest carwash after wrapping, can happen 10 later.

Guarantees and liabilities:

In case of defects that are not results of transportation and disregarding of recommendations, TeckWrap Inc. at its own convenience, will replace a product claimed defective, with adequate quality, or will refund buyers money. This action is the exclusive right and only obligation of TeckWrap Inc. This warranty doesn't cover the cases of normal wearing, transportation, changing product features, and problems that come when wrapper is disregarding application and usage instructions. In no event will TeckWrap Inc. be responsible for labor, consequential damages, or incidental damages of any kind. Replacements will be authorized on a case-by-case basis.

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