

AN INTRODUCTION TO FLAT SURFACE VINYL

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The quality of Calendered films range from Economy to Intermediate, with durability of one to five years. Calendered vinyl's are ideal for flat surface installations as the film does not need to be stretched or conform around curves or corners.

Calendered Monomeric vinyl is more suited to indoor installations as there are no adverse effects from UV exposure or fluctuations in surface temperature. Calendered Polymeric vinyl is suited to outdoor installations, positions that are in direct sunlight and are being exposed to full UV exposure and other weather conditions. The ingredients in the polymeric film allow the film to contract and expand.

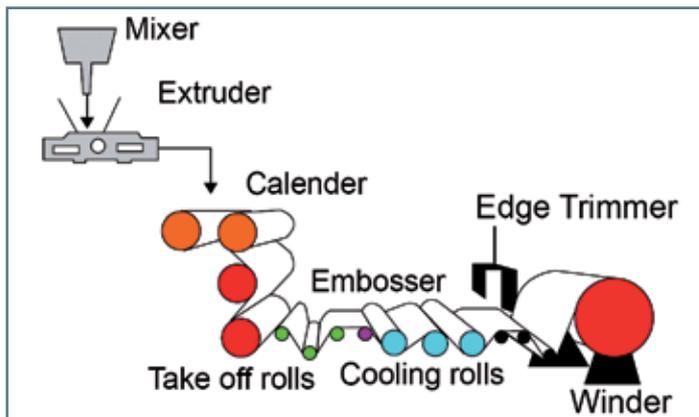
All of the vinyl suppliers in South Africa have their ranges of Calendered films, varying from digital print films to pre-pigmented colours and decorative ranges. Take the time to research various products available from suppliers and distributors and compile a database and pricelists for your use. Implement good record keeping, there is nothing worse than having to look for the same information twice.



CALENDERED VINYL/FILMS

Calendering is a process that results in a more rigid material, which assists with handling and resistance to abrasion.

The term 'calendered', refers to the manufacturing process. It is also named 'Intermediate, Short Term or Economy'. The calendered vinyl ingredients are mixed and heated into a molten state (resembles pizza dough), then extruded through a die and fed through a series of calendaring rolls. The differences in roller speeds, distance between rollers and pressure on materials all contribute to the final thickness of the finished product. These polished steel rollers progressively stretch and squeeze the vinyl into a flat sheet.



As stated, during this process, the vinyl is stretched and therefore develops a memory. Because of this memory, the vinyl will tend to shrink when exposed to heat for long periods of time.

The quality of calendered films can range from Economy to Intermediate with durability of one to five years.

CALENDERED VINYL: MONOMERIC AND POLYMERIC

The plasticisers used in the mixing process determine whether a material is Monomeric or Polymeric. Both are suited for indoor applications. Polymeric films, however, perform better for outdoor applications. Monomeric outside fitments have a limited life-span, restricted to three to five years. Polymeric outdoor fitments on the other hand have a life-span of five to seven years. Polymeric films have better shrink resistance than monomeric films.

The different monomeric and polymeric plasticisers basically determine the flexibility and softness of the film.

ADVANTAGES AND USES OF CALENDERED FILMS

- Larger production runs equals less cost.
- Thicker film equals easier handling.
- Thickness of material contributes to abrasive resistance.

Calendered films are ideal for flat surface fitments that do not require the film to be stretched or conform around contours. 

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