

# ORACAL® 651 INTERMEDIATE CALENDERED FILM

Technical Datasheet  
07/14  
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## Description

2.5-mil, intermediate calendered PVC film with excellent dimensional stability and very good cutting and application characteristics. Available in 60 vivid colors plus transparent, matte white and matte black.

## Release Liner

84# custom silicone-coated paper with special release characteristics that provide excellent weeding and release values. Customized blue silicone paper liner for matte and gloss white face film provides superior contrast for weeding.

## Adhesive

Clear, solvent-based, permanent adhesive

## Area of Use

Ideal for medium-term indoor and outdoor lettering, marking and decoration. Matte finish available in black and white.

## Technical Data

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| <b>Thickness</b> (without liner and adhesive)  | 2.5-mil  |
| <b>Dimensional Stability</b> (FINAT TM-14)   | Adhered to steel, no shrinkage in cross direction;<br>In length, <.016"  |
| <b>Temperature Resistance</b>  | Adhered to aluminum, -40°F to +176°F, no variation   |
| <b>Fire Behavior</b> (DIN 75200)<br><b>Fire Rating</b>   | Adhered to steel, self-extinguishing<br>ASTM E 84-07 Class "A"   |
| <b>Adhesive Power</b> (FINAT TM-1, after 24 h, average)  | Adhered to stainless steel: 4.1 lb/in  |
| <b>Tensile Strength</b> (DIN EN ISO 527)   | Along: Min. 19 MPa<br>Across: Min. 19 MPa  |
| <b>Elongation at Break</b> (DIN EN ISO 527)  | Along: Min. 130%<br>Across: Min. 150%  |
| <b>Seawaterability</b> (DIN 50 021)  | Adhered to aluminum, after 100h/73°F, no variation   |
| <b>Shelf Life</b> (68°F/50% relative humidity)   | 2 years  |
| <b>Minimum Life Expectancy</b> (based on accepted application procedures on vertical surfaces) | 6 years - colors/transparent/black and white<br>4 years - metallic<br>3 years – brilliant blue                             |
| <b>Minimum Application Temperature</b>   | 46°F   |
| <b>Available Lengths</b><br><b>Available Widths</b>  | 150' (50-yard) and 30' (10-yard)<br>15" (punched), 24", 30", 48"<br>36" and 60" available in transparent, black, and white |
| <b>Recommended Application Tapes</b>   | ORATAPE® Series HT55, MT95, MT72   |
| <b>Print Compatibility</b>   | Thermal Transfer (gloss finish only)   |

## Note

Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination which could affect the adhesion of the material. Freshly lacquered or painted surfaces should be completely cured. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. Films with structured surface are naturally more sensitive than the unstructured. Accordingly, these films are to be treated carefully both in processing and in cleaning. Impurities affect the appearance of structured films and require more frequent cleaning. Furthermore the application information published by ORAFOL is to be considered. The batch traceability according to ISO 9001 is possible on the basis of the roll number.



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## IMPORTANT NOTICE

All ORACAL® products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning ORACAL® products is based upon research which the Company believes to be reliable although such information does not constitute a warranty. Because of the variety of uses of ORACAL® products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. All specifications are subject to change without prior notice.



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