

# IMD Technology / Film Insert Molding



The proven and tested NORIPHAN® HTR N ink system from Proell is used worldwide for film insert molding applications and dial printing. Thanks to permanent product development further ink systems have been developed, such as the formable two-component ink systems NORIPHAN® XMR and NORIPHAN® XWR. Both of these ink systems can be used as a washout barrier during the injection molding process while

showing excellent adhesion in compound and long term durability in the final part.

The black color shades of the ink systems NORIPHAN® XMR and XWR can be used for back printing of conductive pastes in functional IMD/FIM parts due to their high electric resistance.



1 screen printed film



2 formed film



3 trimmed film



4 back molded part

Mercedes-Benz C + E-Class HVAC panel



Tactotek injection molded structural electronics panel (IMSE)



Smart HVAC panel



Motorcycle fairing - PP-IMD



3D formed speedometer panel

## Ink System:

NORIPHAN® HTR N  
NORIPHAN® N2K  
NORIPHAN® XWR  
NORIPHAN® XMR  
NoriAmid  
Noricryl®  
NoriPET®  
NORIPHAN® XWR + NoriPress® PP

## Substrate:

Makrofol®/Bayfol® films  
PC films (<125µm), PET films  
PC and PET films  
PC and PET films  
PA films  
PLEXIGLAS® films  
PET films  
PicoFORM - PP films

## Injection Resin:

PC/ABS/PMMA  
PC/ABS  
PC/ABS  
PC/ABS  
PA/PMMA/PC/ABS  
PMMA/ABS  
ABS  
PP

[www.proell.us](http://www.proell.us)

NoriPress® SMK, NoriPress® PP (solvent-based) and AquaPress® (water-based) are bonding agents for IMD/FIM technology. AquaPress® can be back molded with PC, ABS, and PMMA resins. NoriPress® SMK can be back molded with PA as well as the previously mentioned resins. These products can be used as an overprinting adhesion primer to enhance the bonding of IMD inks with various low melting point resins as well as laminating different film types. NoriPress® PP is available for back molding with PP resin.

Norilux® DC, a broad range of formable, abrasion, and chemically resistant dual cure lacquers, can be used to protect first surface decoration or polycarbonate surfaces with various matte and glossy finishes.