

IMD Technology / Film Insert Molding



**Innovative Inks &
Functional Lacquers**

The proven NORIPHAN® HTR N screen printing inks are 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 XWR. Both 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 NORIPHAN® XMR and XWR can be used for over printing of conductive pastes in functional IMD/FIM parts due to their high electrical resistance.

NORIPHAN® HTR N 990 NC, a carbon-free, non-conductive black, is available for printed electronic applications.

The one-component NORIPHAN® HTR N black color shade can be used for decorative prints, but is mainly used for multi-layer printing and backing of conductive pastes.



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 climate control panel



3D formed speedometer panel

Ink System:

NORIPHAN® HTR N
NORIPHAN® PCI N
NORIPHAN® N2K
NORIPHAN® XWR
NORIPHAN® XMR
NoriAmid®
Noricryl®
NoriPET®
NORIPHAN® XWR
NoriCure® IMS

Adhesion Promoter:

NORIPHAN® HTR N
NORIPHAN® HTR N
NoriAmid® APM
NoriPress® PP
AquaPress® or
NORIPHAN® XMR + HTR N

Substrate:

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

Injection Resin:

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

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NoriPress® SMK (solvent-based) and AquaPress® (water-based) are adhesion promoters / bonding agents for IMD/FIM technology. These products can be used as an overprinting adhesion primer to enhance the bonding of IMD/FIM inks to various low melting point resins as well as for laminating different film types. AquaPress® can be back molded with PC, ABS, and PMMA resins. NoriPress® SMK can be back molded with PA additionally. NoriAmid® APM is an adhesion promoter especially developed for PA materials. NoriPress® PP is suitable for back molding with PP resin. NoriCure® IMS is a formable UV screen printing ink for film insert molding applications. Overprinting with suitable IMD/FIM adhesion promoters is compulsory! Process inks for printing high resolution 4C pictures are available.