

# THERMOCOMP™ COMPOUNDS FOR DIELECTRIC SOLUTIONS

LNP™ THERMOCOMP compounds portfolio contains thermoplastic injection molding materials that offer low Dissipation Factor ( $D_f$ ) for improved signal gain and longer reading distance paired with tailor made Dielectric Constants ( $D_k$ ) to fine tune or detour a signal direction supporting innovative antenna designs. Beyond that, THERMOCOMP compounds allow further antenna miniaturization and the design of phase shifters with higher productivity through combined high  $D_k$  and low  $D_f$  material properties.



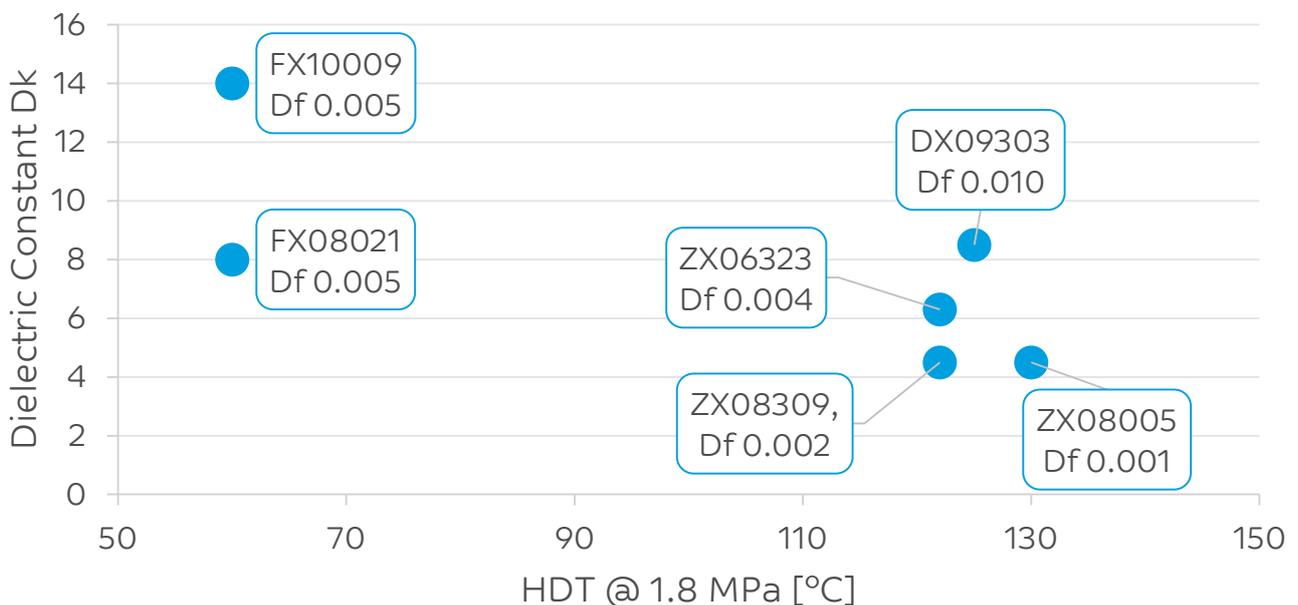
## TYPICAL INDUSTRY REQUIREMENTS:

- Materials for individual antenna design to fine tune or detour signal direction
- Improved signal gain and longer reading distance through less signal attenuation
- Miniaturized antenna solutions with sufficient signal strength for 5G technology
- Improved mechanical performance versus Epoxy or Ceramics in more complex designs for less maintenance through longer lifetime

## TYPICAL MATERIAL CHARACTERISTICS:

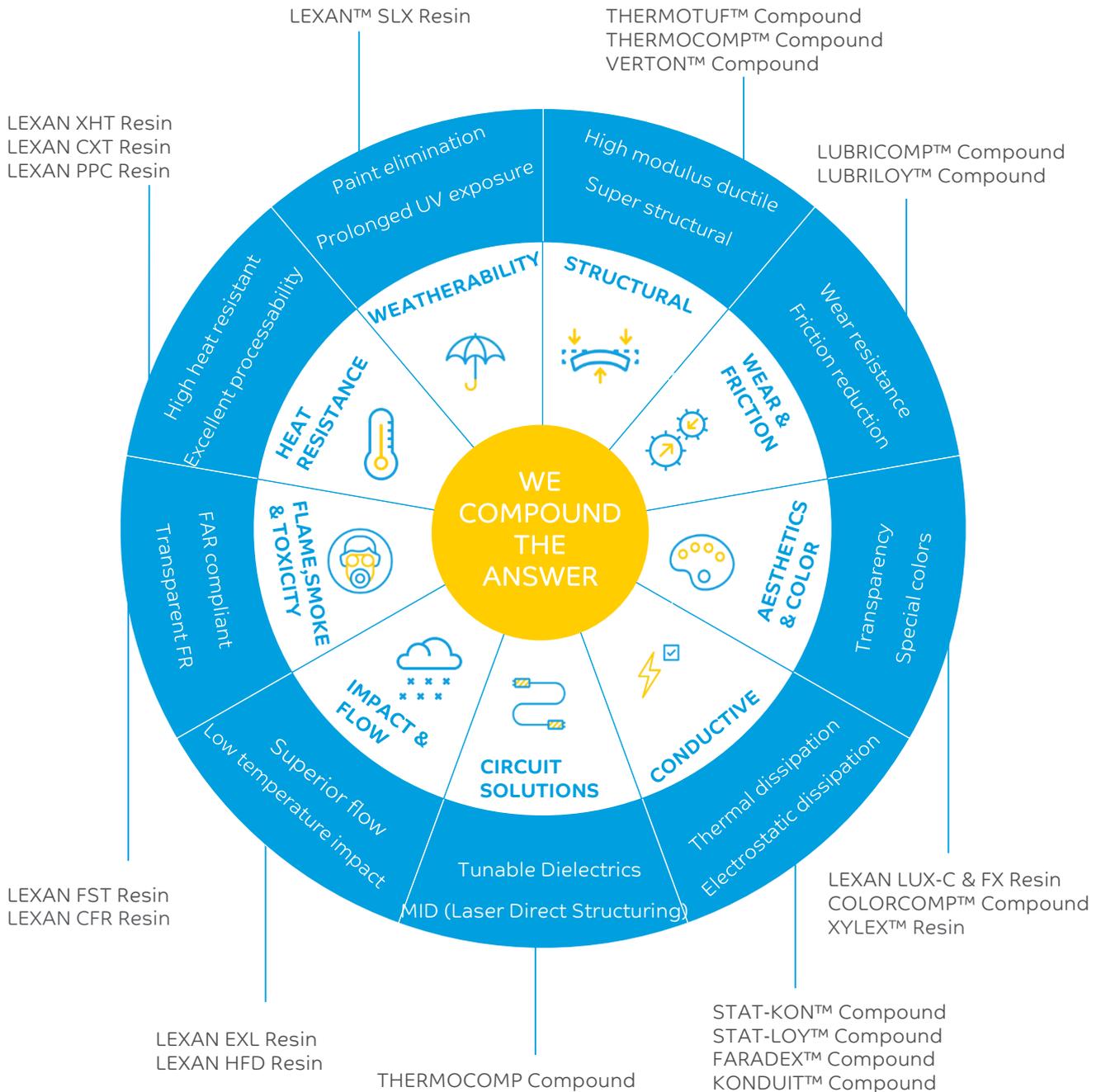
- Tailored Dielectric Constant  $D_k$  by customized compound formulations
- Very low Dissipation Factor  $D_f$  for lower signal absorption, less signal scattering
- Combined high  $D_k$  and low  $D_f$  with very high signal transmission density
- Sufficient flowability for thin wall design, improved ductility, dimensional and dielectric stability versus current solution

## TYPICAL PROPERTIES OF THERMOCOMP COMPOUNDS FOR DIELECTRIC SOLUTIONS:



# LNPT™ COMPOUNDS & LEXAN™ COPOLYMER RESINS

Over 50 years of innovation in thermoplastic compounding enables SABIC's specialty compounds to offer extensive materials with a broad portfolio.



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