



# Automotive testing

Norner is an experienced partner supporting the automotive industry on materials and testing assignments:

- Identification of suitable sources and upgrading of recyclates
- Development of compounds and composites with recyclate content
- Management of odor, volatiles and purification of recyclates
- Development of stabilization packages
- Performance testing and testing related to recyclates
- Environmental testing , emissions / VOC / Fogging
- Exposure testing, UV

Typical standards used:

**ISO 4892-2 | VDA 270 | VDA 275 | VDA 277  
VDA 278 | ISO 6452 | FMVSS 302**



# Pipe testing

Norner is offering a wide range of testing and material expertise within pipe segment:

- Identification of suitable sources and upgrading of recyclates
- Post stabilization
- Testing related to recyclates
- Lifetime predictions
- Accelerated aging
- State of the art equipment

Additional info:



Typical standards used:

Tensile strength for butt fusion **ISO13953** | Peel decohesion test for polyethylene (PE) electrofusion **ISO13954** | Ring stiffness PE pipes **ISO9969** | Ring stiffness GRP pipes **ISO7685** | Carbon black content **ISO6964** | Pigment or Carbon black dispersion **ISO1855** | Dimension / Geometrical **ISO3126** | Flexural modulus **ISO178** | Charpy impact pipe **ISO9854**



**norner**<sup>™</sup>  
The Polymer Explorers