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- POLIFOR NF/A
Interior: structural covered parts
- POLIFOR NF/B
Interior: non covered interior parts
- POLIFOR NF/C
Exterior and underhood non painted parts

POLIFOR NF

Natural Fiber Polypropylene Composites for automotive applications.

The Polifor NF product line consists of polypropylene-based compounds reinforced with vegetable fillers derived from renewable sources.

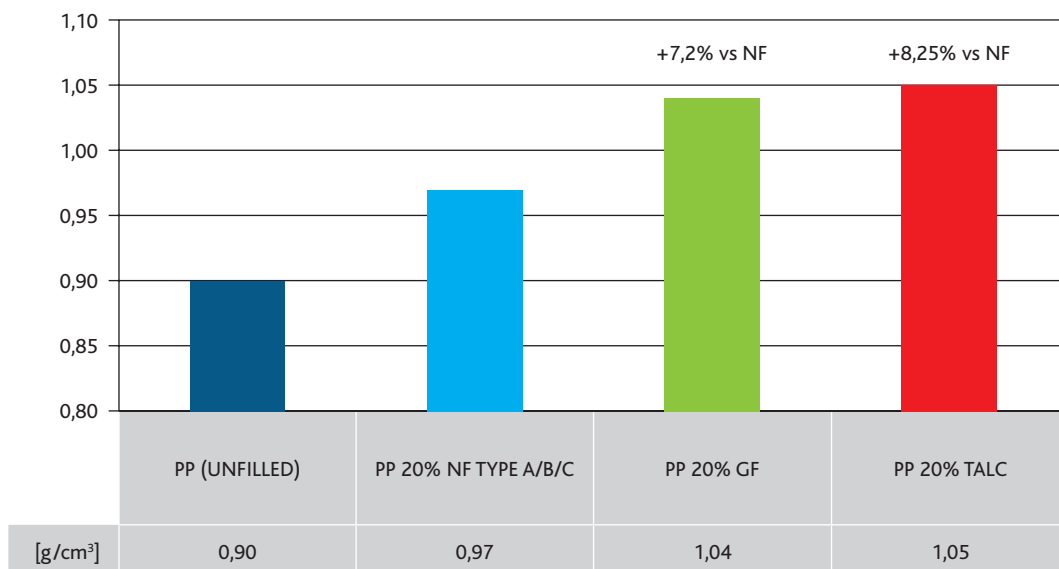
The product range includes three different material types, each one filled with a different fiber, designed to fulfill a broad range of applications in the automotive industry.

In comparison to talc-filled polypropylene compounds with equal filler percentage, Polifor NF products offer multiple benefits, like lower weight, better mechanical performance, better resistance to high temperatures and remarkably higher impact resistance.

Range	Characteristics	Application
Polifor NF/A	Structural material with good mechanical properties for automotive interiors (covered parts)	Carrier for dashboard, pillars, trunk
Polifor NF/B	Fully colorable material with excellent aesthetic properties, for visible, non covered interior parts	Consoles and non covered interior trims
Polifor NF/C	Structural and aesthetic material for automotive exterior (non painted parts)	Cowl vent grille

BENEFITS

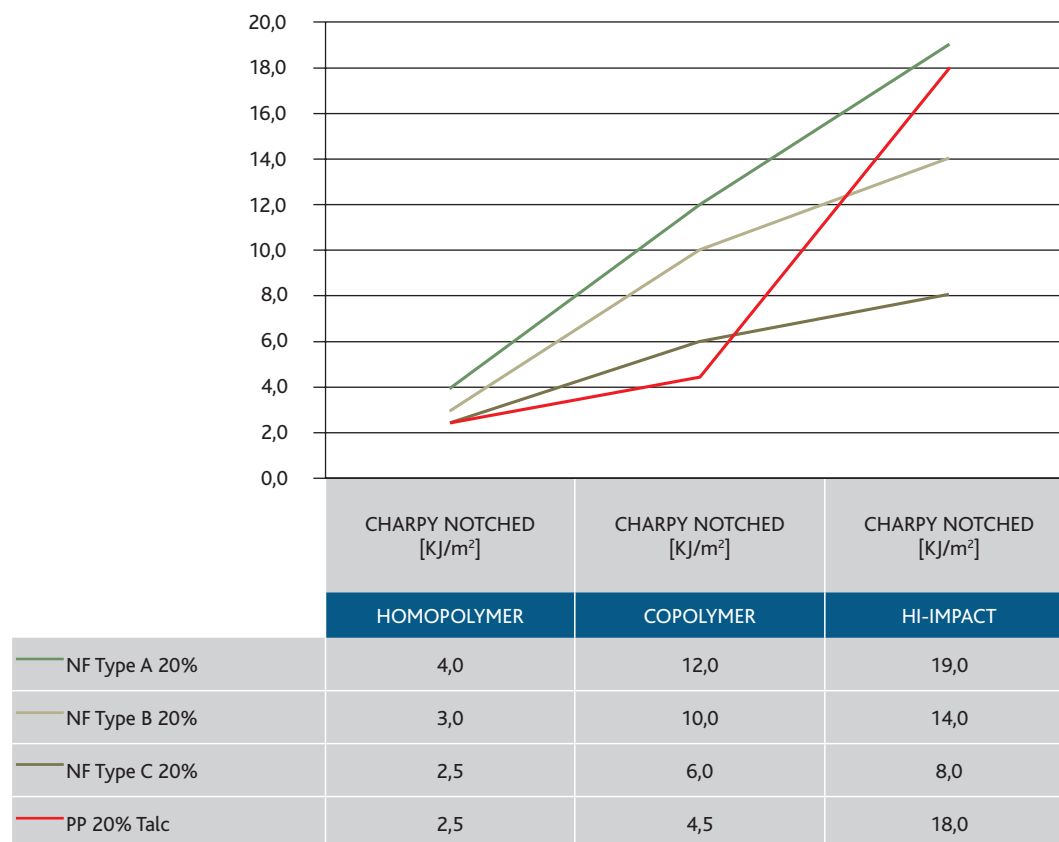
DENSITY



POLIFOR NF grades enable **weight savings** ranging from 7% to over 8% versus PP grades reinforced with equal percentage of Glass Fiber or Talc.

The following charts show a comparison between three POLIFOR NF grades, reinforced with three different fibers, and one talc-filled POLIFOR grade. All compared grades have 20% filler percentage.

IMPACT PROPERTIES

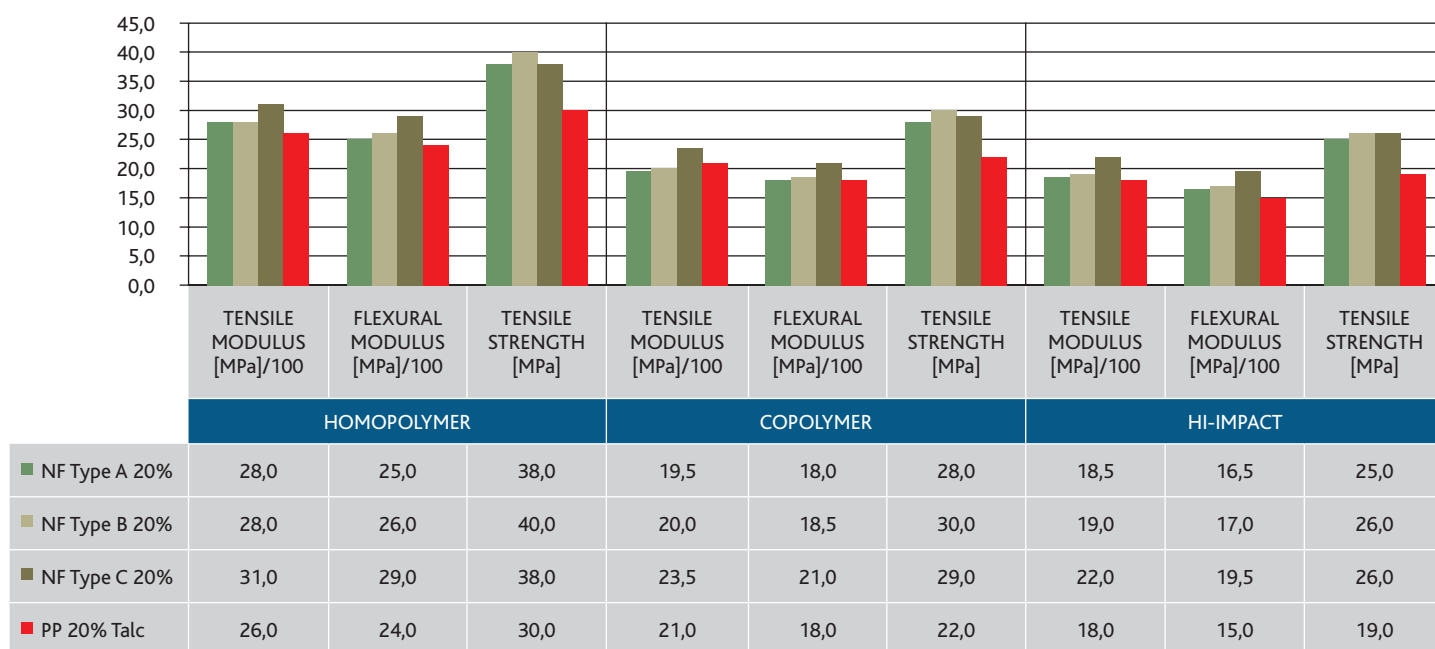


1. POLIFOR NF **homopolymer** and **copolymer** grades show **better impact properties** in comparison with talc filled grades (NF homopolymer + 27%, NF copolymer + 107%).

2. Best impact performance has been achieved by **POLIFOR NF/A** (average +77% vs **POLIFOR/TALC**) which proved to be **highly suitable** for hi-impact applications.

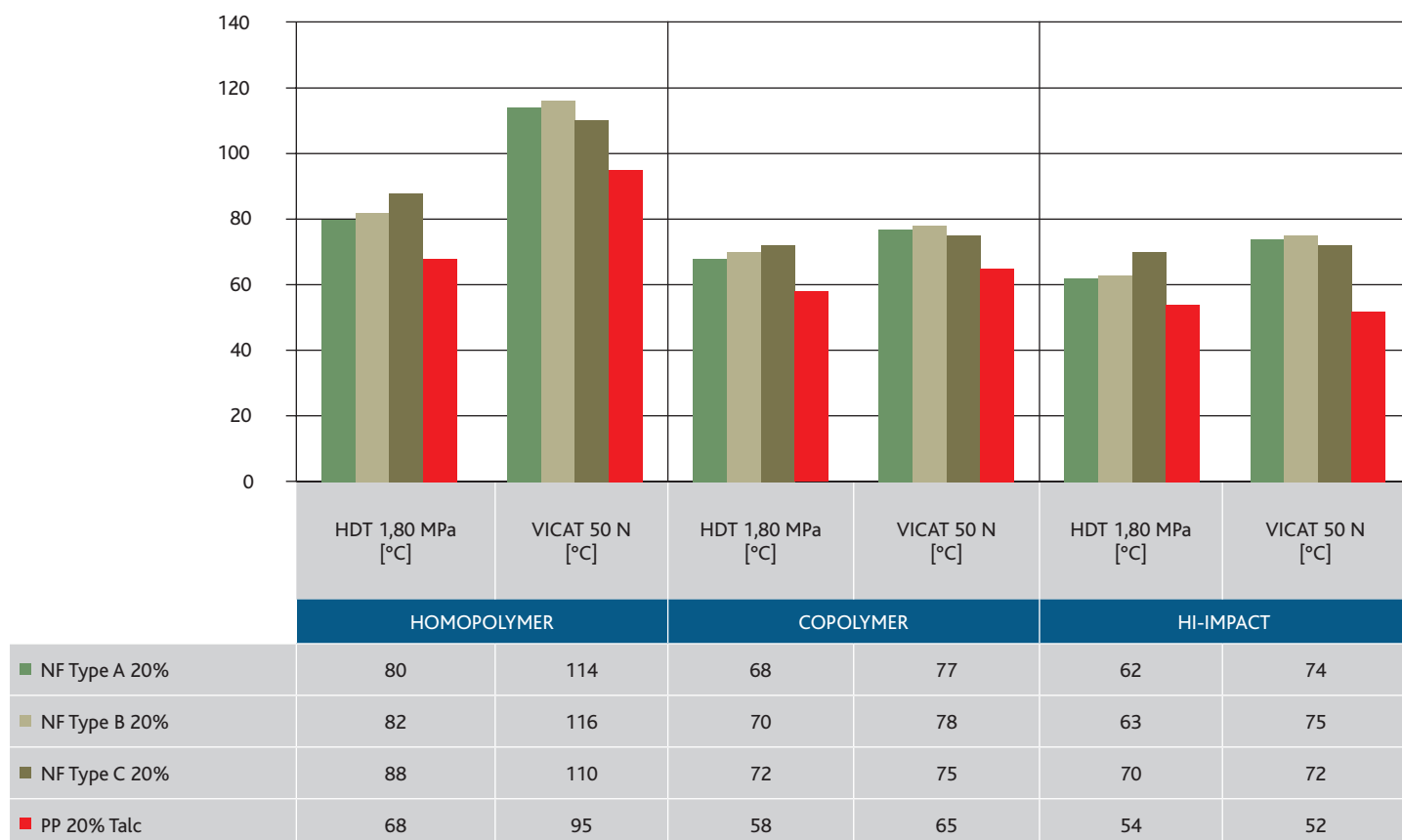
3. Generally speaking all **POLIFOR NF copolymers** showed excellent impact properties.

MECHANICAL PROPERTIES



1. Generally speaking all **POLIFOR NF** grades perform better than **POLIFOR/TALC** at the mechanical tests (average + 17%)
2. **POLIFOR NF** grades perform particularly well at the **Tensite Strength Test** which is a critical parameter for **structural parts** (average +32%)
3. Best overall mechanical performance has been achieved by **POLIFOR NF/C** that outperformed **POLIFOR/TALC** by +24%.

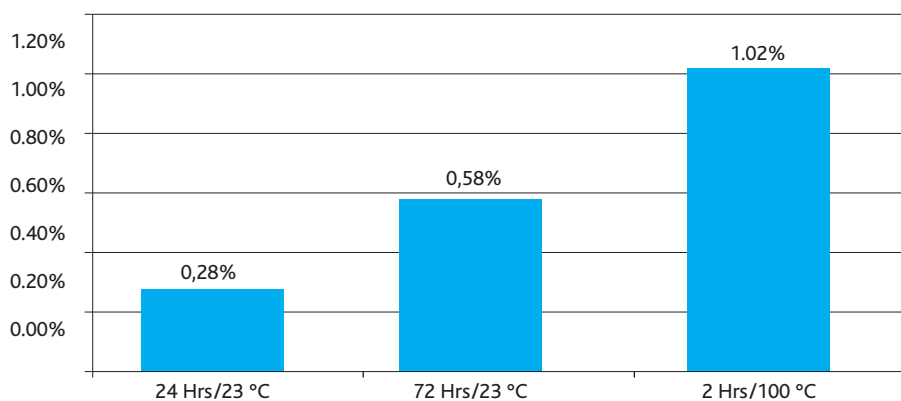
THERMAL PROPERTIES



All **POLIFOR NF** grades show remarkably **higher heat resistance** than **POLIFOR/TALC** (average performance +24%).

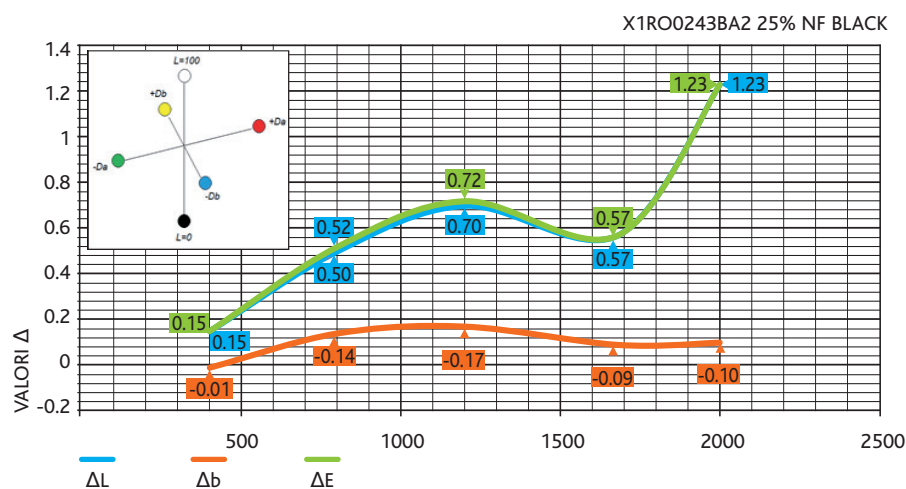
BENEFITS

POLIFOR NF/A - WATER INTAKE



Polifor NF/A shows very good intake values after immersion in water

UV AGING POLIFOR NF/C



UV aging Xeno Test CI4000 demonstrate excellent UV stability of POLIFOR NF/C after 2,000 hours exposure

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