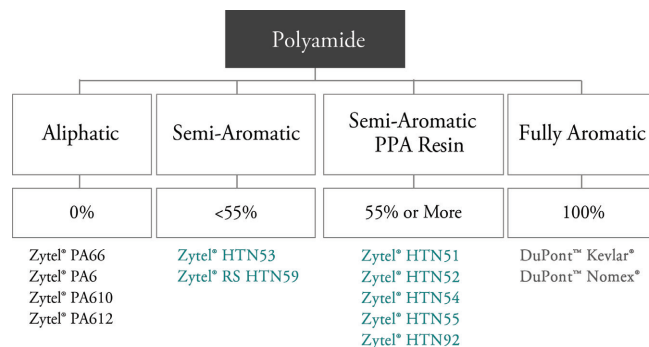


DUPONT™ ZYTEL® HTN HIGH PERFORMANCE POLYAMIDE RESIN PRODUCT REFERENCE GUIDE

DuPont™ Zytel® HTN cost effectively bridges the performance gap between conventional engineering resins and high-end specialty polymers. Zytel® HTN PPA grades retain stiffness, strength and mechanical properties despite exposure to high temperatures, chemicals and moisture, making them ideal for automotive underhood components and systems, as well as electrical and electronic connectors and bushings. Structural grades of Zytel® HTN help provide larger display areas when used in backbones for cell phones, tablets and other hand-held devices. Talk to DuPont about how Zytel® HTN can deliver a solution to your unique challenges.



Based on semi-aromatic structure, Zytel® HTN offers a balance of chemical, moisture and temperature resistance, plus outstanding processability.

DUPONT™ ZYTEL® HTN PRODUCT SELECTION

Product portfolio is ranked generically by increasing property retention in the specific end-use environment. Product ranking is determined by the typical best performance for the specific application requirement.

← Increasing Property Retention

| | | | | | | |
|--------------------|-------|-------|--------|-------|-------|-------|
| Temperature | HTN51 | HTN55 | HTN52 | HTN54 | HTN53 | HTN59 |
| Moisture | HTN51 | HTN54 | HTN53* | HTN55 | HTN52 | HTN59 |
| Chemicals | HTN51 | HTN54 | HTN52 | HTN59 | HTN55 | HTN53 |
| Heat-aging | HTN51 | HTN54 | HTN52 | HTN55 | HTN53 | HTN59 |

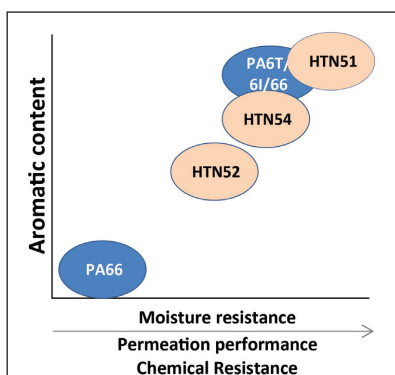
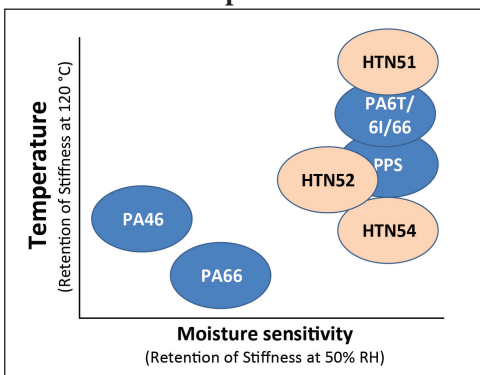
← Increasing Performance

| | | | | | | |
|--------------------------------|-------|-------|-------|-------|-------|-------|
| Creep | HTN51 | HTN52 | HTN55 | HTN54 | HTN53 | HTN59 |
| Toughness | HTN53 | HTN59 | HTN54 | HTN51 | HTN55 | HTN52 |
| Dimensions (w.moisture) | HTN59 | HTN51 | HTN54 | HTN52 | HTN55 | HTN53 |
| Surface Aesthetics | HTN59 | HTN53 | HTN51 | HTN55 | HTN52 | HTN54 |

* HTN53 property retention in moist environments dependent on temperature range. These are general guidelines and product selection is typically dependent upon multiple factors.

DUPONT™ ZYTEL® HTN PPA RESINS

Performance Comparison



Applications

- **Zytel® HTN51:** Water thermal management, auto E/E, electrical components
- **Zytel® HTN52:** Electronic connectors, electrical components
- **Zytel® HTN54:** Auto E/E, fuel connectors
- **Zytel® HTN55:** Handheld devices - laptop covers
- **Zytel® HTN92:** Hot air thermal management

DUPONT™ ZYTEL® HTN STRUCTURAL RESINS

Applications

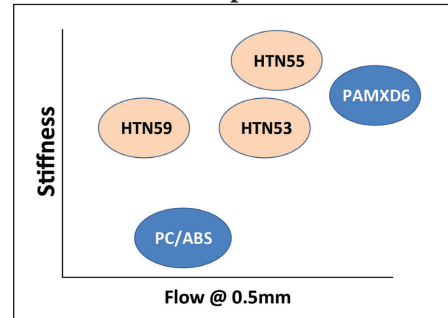
- Zytel® HTN53: Furniture, cell phones
- Zytel® RS HTN59: Cell phones

DUPONT™ ZYTEL® HTN RESINS IN HANDHELD DEVICES

With excellent flow, dimensional stability, toughness and strength, Zytel® HTN can reduce the total system cost of thinner and lighter housings for laptop computers, tablet PCs, cell phones and other devices.



Performance Comparison



Polyamides contain 50-55% GF reinforcement

DUPONT™ ZYTEL® HTN GLOBAL PRODUCT PORTFOLIO

| | Zytel® HTN51 | | Zytel® HTN52 | Zytel® HTN53 | Zytel® HTN54 | Zytel® HTN55 |
|--------------------------------|---------------------------------|-----------------------------------|---|-------------------------------------|-----------------------------------|----------------------------|
| Glass Reinforced | 51G15HSL 51G35EF 51G35HSL | 51G35HSLR 51G35FWS 51G45HSL | 52G35EF 52G35HSL 52G45HSL | 53G35LRHF 53G50HSLR 53G60LRHF | 54G15HSLR 54G35EF 54G35HSLR | 55G55TLW |
| Ultra High Stiffness | | | | 53C40HSL | | |
| Low Warp | | | | | | 55G55TLW FR55G50NHLW |
| Flame Retardant | | | FR52G20NH FR52G30BL FR52G30 NH FR52G35NHF FR52G43HF | | | FR55G50NHLW FR55G55NHLW |
| Toughened/ Unreinforced | FE8200 | | | | | |
| Static Dissipative | | | | 53C40HSL | FE350064 | |
| Food Contact | | | FG52G35HSL | | | |

Many other grades are available by region. Please connect with DuPont for your specialized needs.

Visit us at plastics.dupont.com or zytelhtn.dupont.com

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