

Hyperpol®



Tisan

High Performance Solutions

Hyperpol®

High performance engineering plastics meet high requirements in extreme environment conditions. Operating temperature of these plastics are higher than 150°C and they bring superior properties such as low friction, chemical resistance and high temperature resistance. The compounds are developed to improve the durability and performance for replacement metals in different markets especially in automotive, transportation and manufacturing. Tisan Engineering Plastics has wide range of portfolio based on polyphenylene sulfide (PPS) and polyphthalamide (PPA) compounds.

Polyphenylene sulfide (PPS) is a semi-crystalline polymer with high melting point. PPS are compounded with fibers and fillers to develop less brittle materials. PPS has properties such as high temperature resistance, chemical resistance, dimensional stability, good electrical properties and inherent flame retardant properties. Engineers of Tisan has developed PPS based compounds under the trademark Hyperpol® SP.

Polyphthalamide (PPA) is a semi-crystalline aromatic polyamide. PPA has outstanding physical, thermal and electrical properties. These products are stronger, stiffer and higher thermal resistance than PA66. Chemical fatigue and creep resistance are other significant properties of PPA. Hyperpol® AP is a trademark for PPA compounds developed by Tisan.

Main Specifications

Hyperpol® SP

- High temperature performance polymer
- High melting point
- High chemical resistance
- Inherently flame retardant
- High dimensional stability
- High heat deflection temperature
- Replacement for metal and thermoset material

Hyperpol® AP

- Very high stiffness and hardness
- Good dimensional stability
- High temperature resistance
- High resistance to chemicals
- Chemical resistance
- Relatively low moisture absorption
- Fatigue-resistant

Fillers / Reinforcements / Modifiers

- Glass fibers
- Carbon fibers
- Heat stabilizers
- Hydrolysis stabilizers
- Lubricants
- UV stabilizers
- Thermally conductive
- UL94 V-0 classifications
- Glow wire flammability index

Markets

- Automotive
- Electric & Electronics
- Home appliances
- Construction
- Industrial applications
- Defense industry
- Safety equipment
- Transportation
- Office Furniture
- Sports
- Energy
- Others



Our quality is **your** **guarantee**

Our product reach reliably the customer having passed all the quality tests in our T-LAB laboratory matching international standards.

1 Mechanical tests	2 Physical properties	3 Weathering and aging tests
4 Flammability tests	5 Color arrangement and measurements	6 Thermal and flow analysis
7 Heat deflection analysis	8 Electrical and chemical resistance	9 Dimensional tests

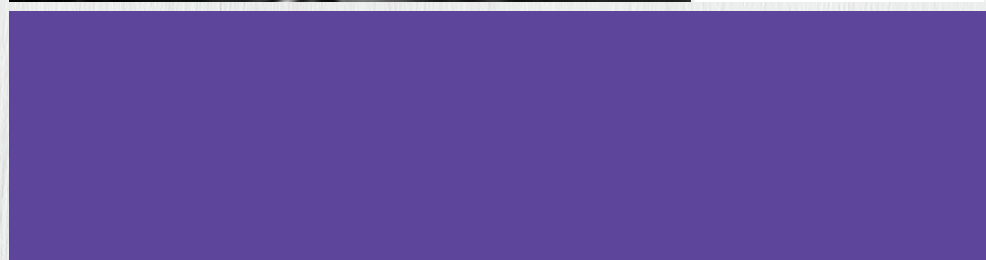
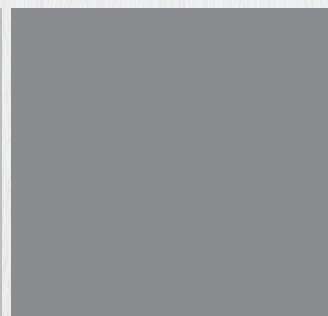
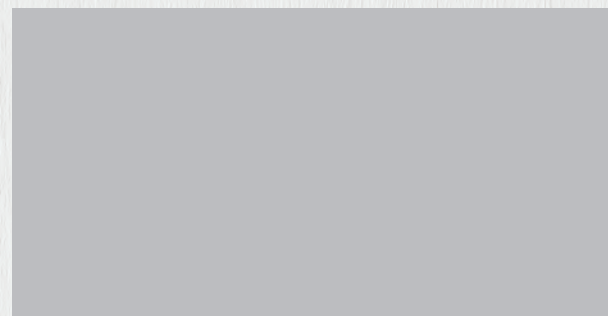
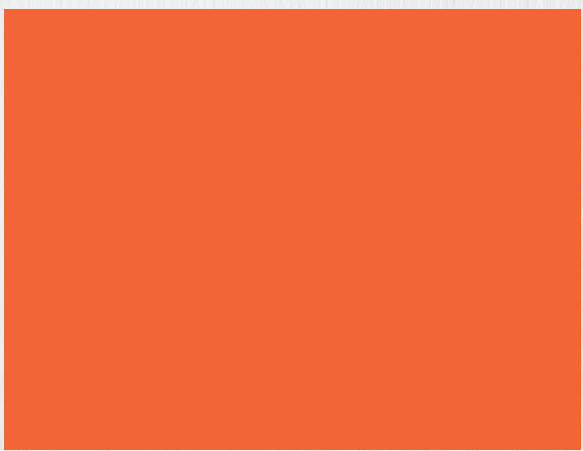
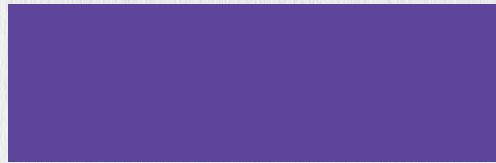


More than
40 years
experience

Tisan Engineering Plastics specialized on production of compounds used as raw materials more than 40 years experience. Tisan produces competitive and favorable solutions to customers based on their requirements. Our aim is to provide competitive solutions, qualified products, flexible production, high-speed service with strong technical infrastructure and human quality in both standard and exclusive products for all markets.

Polyphenylene Sulfide (PPS)

Hyperpol PS 10D03 K06 R01 PPS, 10% glass fiber reinforced, hydrolysis stabilized	Hyperpol PS 10D03 K06 R02 PPS, 10% glass fiber reinforced, hydrolysis stabilized	Hyperpol PS 10D03 K08 R01 PPS, 10% glass fiber reinforced, PTFE lubricated	Hyperpol PS 10D03 R01 PPS, 10% glass fiber reinforced
Hyperpol PS 10D03 R02 PPS, 10% glass fiber reinforced	Hyperpol PS 10D11 R02 PPS, 10% carbon fiber reinforced	Hyperpol PS 10D14 R01 PPS, 10% PTFE filled	Hyperpol PS 20D03 K06 R01 PPS, 20% glass fiber reinforced, hydrolysis stabilized
Hyperpol PS 20D03 K06 R02 PPS, 20% glass fiber reinforced, hydrolysis stabilized	Hyperpol PS 20D03 K08 R01 PPS, 20% glass fiber reinforced, PTFE lubricated	Hyperpol PS 20D03 R01 PPS, 20% glass fiber reinforced	Hyperpol PS 20D03 R02 PPS, 20% glass fiber reinforced
Hyperpol PS 20D11 R02 PPS, 20% carbon fiber reinforced	Hyperpol PS 20D14 R01 PPS, 20% PTFE filled	Hyperpol PS 25D03D14 R01 PPS, 25% glass fiber reinforced and PTFE filled	Hyperpol PS 30D03 K06 R01 PPS, 30% glass fiber reinforced, hydrolysis stabilized
Hyperpol PS 30D03 K06 R02 PPS, 30% glass fiber reinforced, hydrolysis stabilized	Hyperpol PS 30D03 R01 PPS, 30% glass fiber reinforced	Hyperpol PS 30D03 R01 PPS, 30% glass fiber reinforced	Hyperpol PS 30D11 R02 PPS, 30% carbon fiber reinforced
Hyperpol PS 35D01D03 R01 PPS, 35% glass fiber reinforced and mineral filled	Hyperpol PS 40D03 K05 R02 PPS, 40% glass fiber reinforced, MoS2 modified	Hyperpol PS 40D03 K06 R01 PPS, 40% glass fiber reinforced, hydrolysis stabilized	Hyperpol PS 40D03 K06 R02 PPS, 40% glass fiber reinforced, hydrolysis stabilized
Hyperpol PS 40D03 K13 R01 PPS, 40% glass fiber reinforced, silicon modified	Hyperpol PS 40D03 R01 PPS, 40% glass fiber reinforced	Hyperpol PS 40D03 R02 PPS, 40% glass fiber reinforced	Hyperpol PS 45D01D03 R01 PPS, 45% glass fiber reinforced and mineral filled
Hyperpol PS 45D03D14 R01 PPS, 45% glass fiber reinforced and PTFE filled	Hyperpol PS 65D01D03 R01 PPS, 65% glass fiber reinforced and mineral filled	Hyperpol PS UNR R01 PPS, unreinforced	



Polyphthalamide (PPA)			
Hyperpol AP 10D03 K06 R01 PPA, 10% glass fiber reinforced, hydrolysis stabilized	Hyperpol AP 10D03 K06 R02 PPA, 10% glass fiber reinforced, hydrolysis stabilized	Hyperpol AP 10D03 K08 R01 PPA, 10% glass fiber reinforced, PTFE lubricated	Hyperpol AP 10D03 F01 R01 PPA, 10% glass fiber reinforced, flame retardant-halogen (RoHS compliant)
Hyperpol AP 10D03 R01 PPA, 10% glass fiber reinforced	Hyperpol AP 10D03 R02 PPA, 10% glass fiber reinforced	Hyperpol AP 10D11 R02 PPA, 10% carbon fiber reinforced	Hyperpol AP 10D14 R01 PPA, 10% PTFE filled
Hyperpol AP 20D03 K06 R01 PPA, 20% glass fiber reinforced, hydrolysis stabilized	Hyperpol AP 20D03 K06 R02 PPA, 20% glass fiber reinforced, hydrolysis stabilized	Hyperpol AP 20D03 K08 R01 PPA, 20% glass fiber reinforced, PTFE lubricated	Hyperpol AP 10D03 F01 R01 PPA, 20% glass fiber reinforced, flame retardant-halogen (RoHS compliant)
Hyperpol AP 20D03 R01 PPA, 20% glass fiber reinforced	Hyperpol AP 20D03 R02 PPA, 20% glass fiber reinforced	Hyperpol AP 20D11 R02 PPA, 20% carbon fiber reinforced	Hyperpol AP 20D14 R01 PPA, 20% PTFE filled
Hyperpol AP 25D03D14 R01 PPA, 25% glass fiber reinforced and PTFE filled	Hyperpol AP 30D03 K06 R01 PPA, 30% glass fiber reinforced, hydrolysis stabilized	Hyperpol AP 30D03 K06 R02 PPA, 30% glass fiber reinforced, hydrolysis stabilized	Hyperpol AP 30D03 R01 PPA, 30% glass fiber reinforced
Hyperpol AP 30D03 R02 PPA, 30% glass fiber reinforced	Hyperpol AP 30D11 R02 PPA, 30% carbon fiber reinforced	Hyperpol AP 35D01D03 R01 PPA, 35% glass fiber reinforced and mineral filled	Hyperpol AP 40D03 K05 R02 PPA, 40% glass fiber reinforced, MoS2 modified
Hyperpol AP 40D03 K06 R01 PPA, 40% glass fiber reinforced, hydrolysis stabilized	Hyperpol AP 40D03 K06 R02 PPA, 40% glass fiber reinforced, hydrolysis stabilized	Hyperpol AP 40D03 K13 R01 PPA, 40% glass fiber reinforced, silicon modified	Hyperpol AP 40D03 R01 PPA, 40% glass fiber reinforced
Hyperpol AP 40D03 R02 PPA, 40% glass fiber reinforced	Hyperpol AP 45D01D03 R01 PPA, 45% glass fiber reinforced and mineral filled	Hyperpol AP 45D03D14 R01 PPA, 45% glass fiber reinforced and PTFE filled	Hyperpol AP 65D01D03 R01 PPA, 65% glass fiber reinforced and mineral filled
Hyperpol AP UNR K04 K10 R01 PPA, unreinforced, impact modified, lubricated	Hyperpol AP UNR K04 K02 R01 PPA, unreinforced, impact modified, heat stabilized	Hyperpol AP UNR R01 PPA, unreinforced	

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