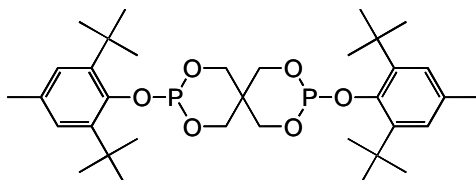


ADK STAB PEP-36

— Phosphite antioxidant —

Identification



[CAS Number]

80693-00-1

[Chemical Name]

Bis(2,6-di-*tert*-butyl-4-methylphenyl)
pentaerythritol-di-phosphite

[Formula]

$C_{35}H_{54}O_6P_2$

[Molecular Weight]

633

Features

- Is a high-performance phosphite which provides marked process stability to polymers. It also has excellent resistance to hydrolysis and thermal stability. It is recommended for applications which require high-temperature processing and/or strongly avoid discoloring.
- Protects polymers against thermal degradation, which drastically reduces discoloration and prevents the increase of melt flow rate of the polymer during high-temperature processing.
- Shows a marked synergistic effect when used with phenolic antioxidants.
- Approved as an indirect additive in food contact substances in US, EU and Japan. Potential application is food packaging. (For additional information such as kind of adaptable polymers, please ask our Sales Department.)

Applications

- Polyolefins such as PP and HDPE
- Styrene resins such as PS and ABS
- Engineering plastics such as PA, PC, m-PPE, Polyesters

Physical and mechanical properties

- Appearance White powder
- Melting point 234~240°C
- Thermal stability (TGA, 10°C/min, Air 200ml/min) 10% weight loss temperature : 299°C
- Solubility (g/100g solvent, 25°C) Water: <0.01 Acetone: 0.4 Toluene: 3.2
Methanol: <0.01 n-Hexane: 0.2

(*Above value of properties are just typical, not specific)

Performance

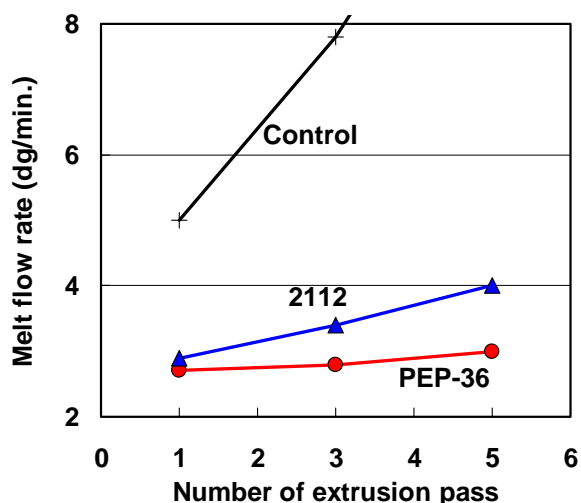


Fig.1 MFR-change of PP (repeated extrusion)

Formulation: PP-h (100)/CaSt (0.1)/
AO-60(0.1)/ Phosphite (0.1)
Process: repeated extrusion 280 °C

*Control: without phosphite

*2112: ADK STAB 2112 , Tris(2,4-di-*tert*-butylphenyl)phosphite

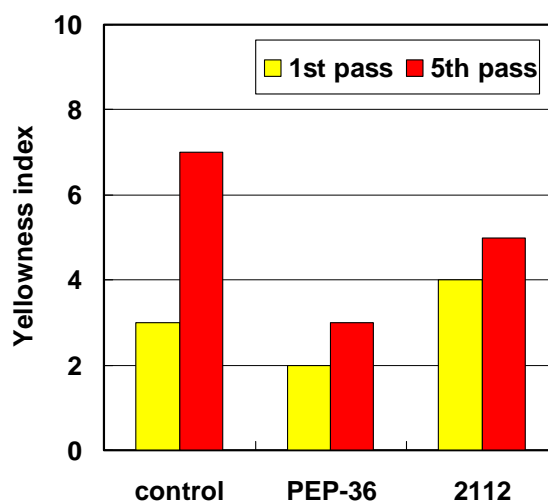


Fig.2 Yellowness index of PP (repeated extrusion)

Formulation: PP-h (100)/CaSt (0.1)/
AO-60(0.1)/ Phosphite (0.1)
Process: repeated extrusion 280 °C,
injection 250 °C
Test pieces: 1mm-thick plaque

Handling and storage

- Phosphites tend to be hydrolyzed when exposed to humidity. Store in the original container securely under cool and dry conditions. After opening, use immediately.
- Protective clothing should be worn when operators are handling, or being exposed to, this product. See the MSDS for further detailed advice.