

# DOVERPHOS LP-09

Liquid, Nonylphenol-Free  
Thermal Stabilizer for  
Polyolefins, Rubber and PVC

**Doverphos LP-09** is an oligomeric alkyl and aryl substituted phosphite. **Doverphos LP-09** is a process stabilizer for polyolefins, such as LLDPE and HDPE; styrenics, such as SBR and HIPS; as well as other polymers. LP-09 can be used in combination with hindered phenolic antioxidants and other polymer additives to give outstanding melt flow and color stability during processing. Typical use levels range from 0.04 to 0.25%.

## Key properties of LP-09 compared to TNPP

- ▶ LP-09 offers excellent process stability even when used at reduced levels vs. TNPP
- ▶ LP-09 offers superior color stability during oven aging and exposure to NOx, at much lower use levels than TNPP
- ▶ LP-09 has excellent resistance to hydrolysis: after 72 hours of humid aging LP-09 had an acid number of 0.06 compared with an acid number of 56 for TNPP
- ▶ LP-09 provides reduced gel counts in LLDPE films

PROPERTY	TYPICAL RESULT
Appearance	Clear liquid
% Phosphorus	4.79
Density, Lb. /gal.	7.8
Weight Loss (TGA onset temp °C)	318

PARAMETER	TYPICAL	TEST METHOD
Color, APHA	20	ASTM D1209
Acid Number, mg KOH/gm	0.02	ASTM D3242
Refractive Index, 25°C	1.4940	ASTM D1218
Specific Gravity, 25°C	0.944	ASTM D1298

For more information, visit us at [www.doverchem.com](http://www.doverchem.com)

Toxicity and handling information is found on the Safety Data Sheet (available upon request)

LGP-11®, LUBE-BOOSTER®, MAYCO®, PAROIL®, SUL-PERM®, SYN-CHEK®, SYNKAD®, CHLOREZ®, CHLOROWAX 40®, CHLOROWAX 50®, DOVERNOX®, DOVERPHOS®, DOVERPHOS HIPURE®, and DOVERPHOS S-9228® are federally registered trademarks of Dover Chemical Corporation.

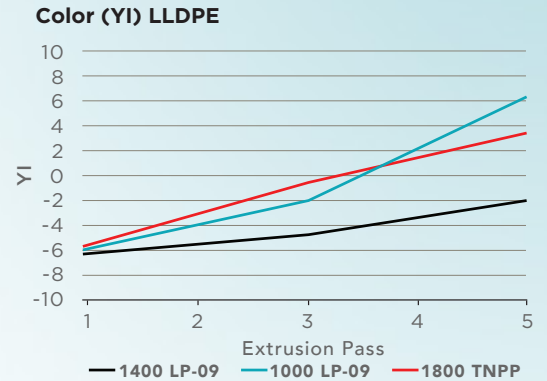
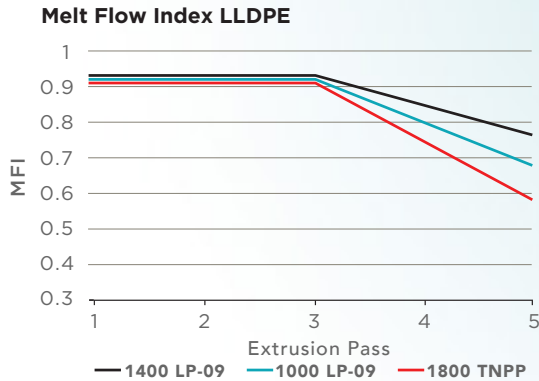
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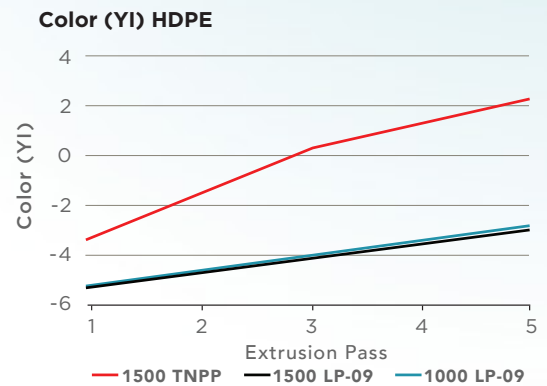
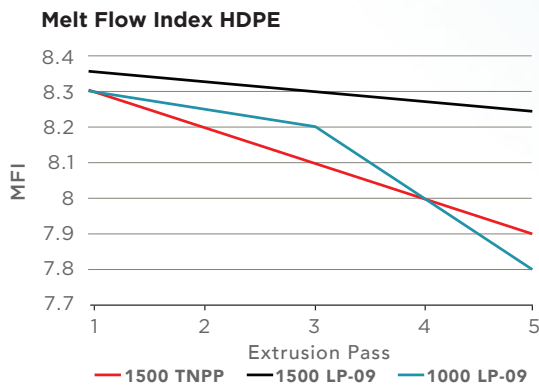
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# DOVERPHOS LP-09 PERFORMANCE IN POLYOLEFINS:

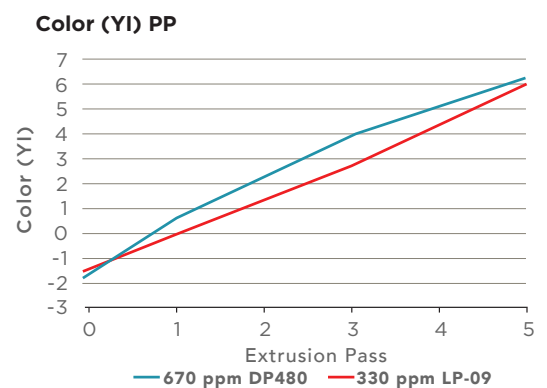
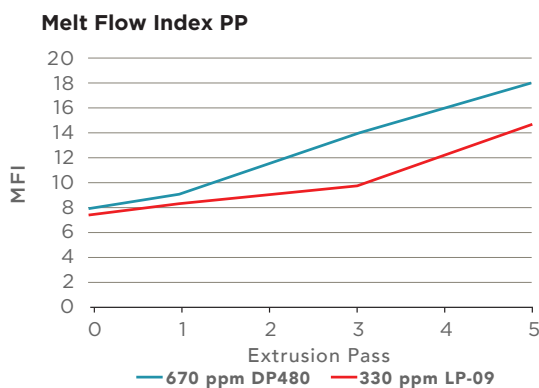
Doverphos LP-09 offers improved color stability and melt flow stability in polyolefins compared to TNPP.



\*All formulations contained 500ppm Dovernox 76 and were extruded at 240°C.



\*All formulations contained 500ppm Dovernox 10 and were extruded at 240°C.



\*All formulations contained 330ppm Dovernox 10 and were extruded at 260°C.

LP-09 offers superior performance in polyolefins compared to commonly used solid or liquid phosphites. LP-09 can be used at reduced loading levels in LLDPE, HDPE, and PP to achieve equal or better MFI and color (YI) results than other phosphites.



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