

ระบบสารปรับปรุงความหนืดสำหรับน้ำมันหล่อลื่นพื้นฐานที่ผลิตในประเทศไทย

นางสาววิไลพร เหลืองเลิศขจร



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**VISCOSITY IMPROVER SYSTEM FOR LUBRICATING BASE OIL
PRODUCED IN THAILAND**

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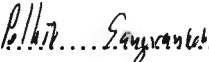
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This research aims to discover properties and applications of dual viscosity index improver systems by comparing with existing single viscosity index improvers currently used by domestic petrochemical industry. The research investigated possible combinations of two viscosity index improvers in base oil by studying the viscosities of each system at various ratios. The dual viscosity index improvers systems were then used to formulate engine oil API grade SJ/CF SAE 20W50 for specification examines. The results indicated that several dual viscosity index improvers systems can be used to replace the currently existing single viscosity index improvers.

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ABBREVIATIONS

OCP	Olefin copolymer
PIB	Polyisobutylene
PMA	Polymethacrylate
SIP	Hydrogenated Styrene-isoprene copolymer
°C	Degree Celsius
%wt.	Percent Weight
CCS @ -15°C	Viscosity at -15°C
PVL	Percent Viscosity Loss
SSI	Shear Stability Index
VI	Viscosity Index
s ⁻¹	Per second
HTHS	Viscosity at High Temperature and High Shear Rate
PSSI	Permanent Shear Stability Index
TSSI	Temporary Shear Stability Index
ASTM	American Society for Testing and Material
SAE	Society of Automotive Engineers
API	American Petroleum Institute
cP	Centipoise
cSt	Centistoke