

Fuel Barrier Property of “Soarnol[®]”

Fuel barrier property of “Soarnol[®]” is shown in the following.

(1) Test Method

1) Sample

Multilayer pouch: Thickness (HDPE/Tie/EVOH/Tie/HDPE)=(80/10/20/10/80) μ m
:Surface Area 200cm² for both sides(Dimensions 10cm*10cm)
EVOH :Soarnol 25mol%,29mol%,32mol%

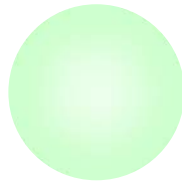
2) Fuel

E10=(Fuel C/EtOH)=(90/10) vol%
Fuel C=(Toluene/ i -Octane)=50/50 vol%

3) Measurement of Fuel Barrier Property

Hold under 40deg C, Dry Atmosphere
Weigh the pouch after predetermined time

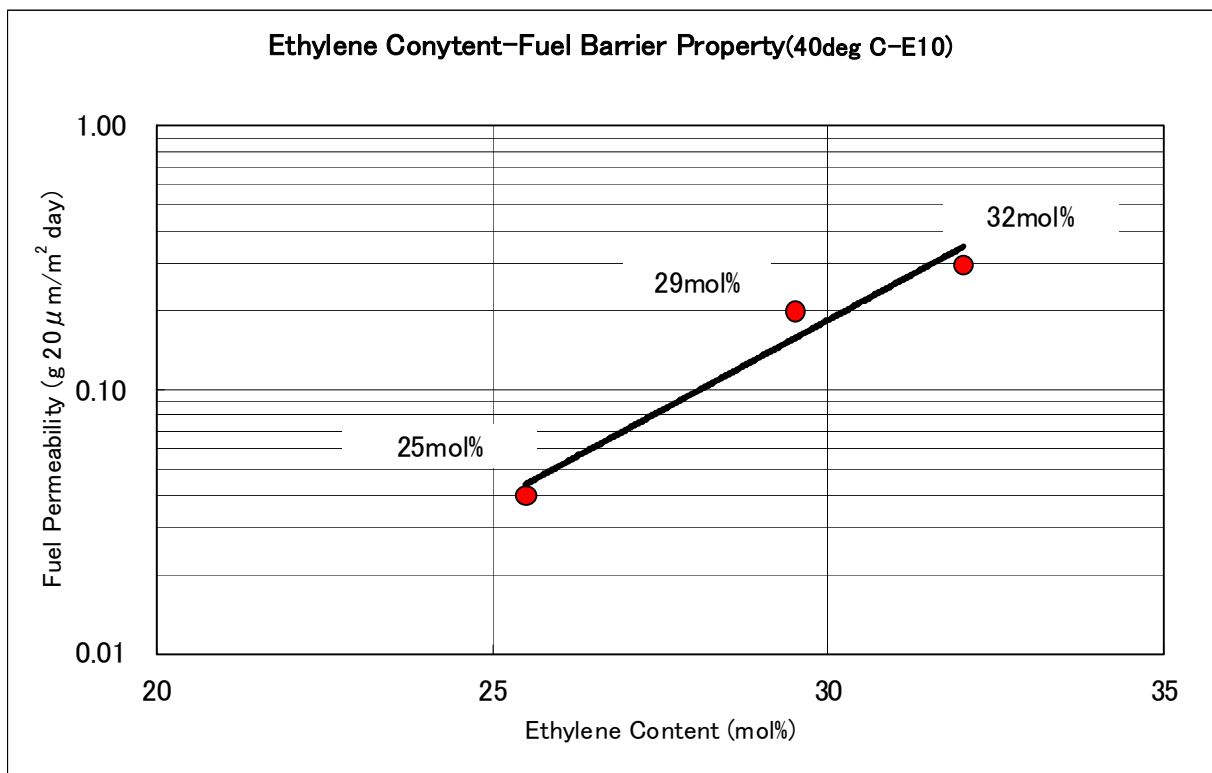




(2)Result

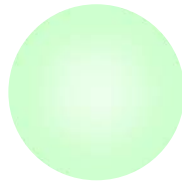
1) E10 system

EVOH	Fuel Permeability (g 20 μ /m ² day)
Soarnol 25mol%	0.04
Soarnol 29mol%	0.20
Soarnol 32mol%	0.30



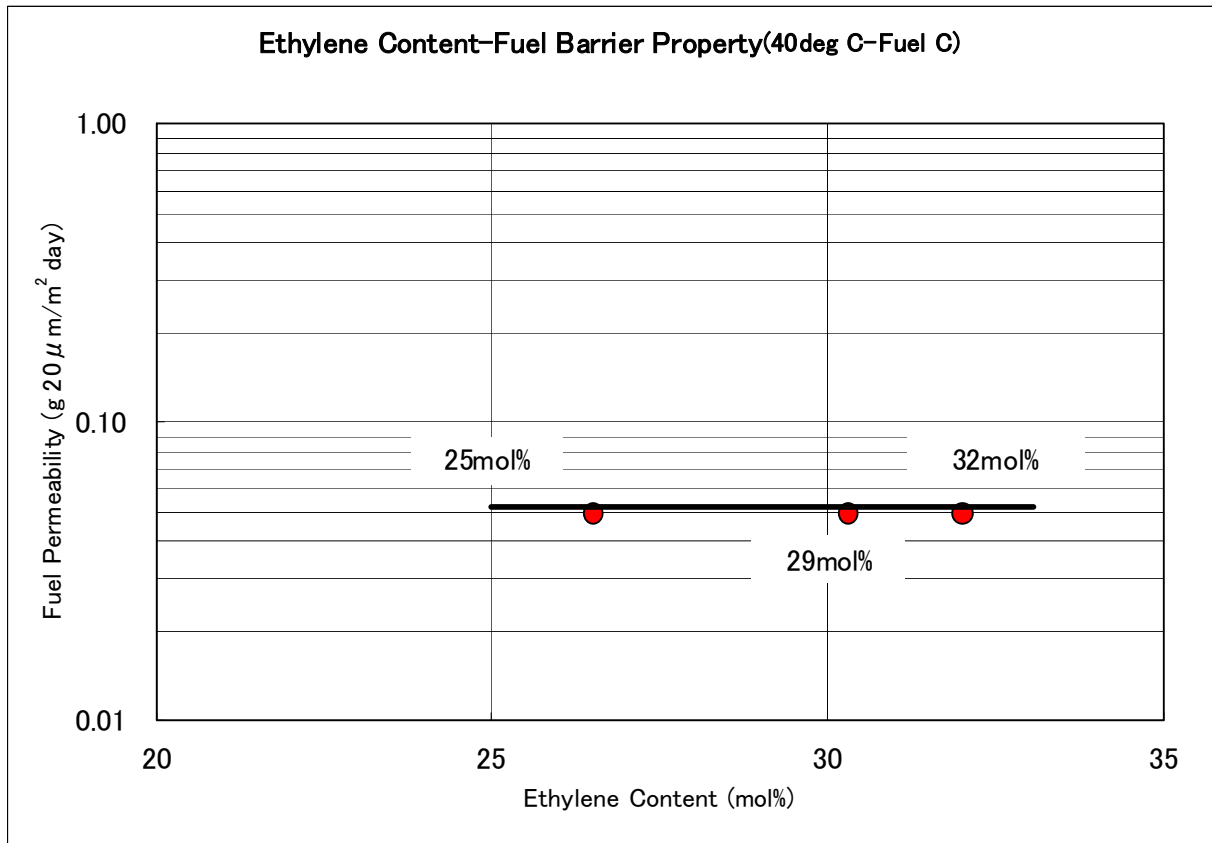
In case of E10 system consisting of ethanol, low ethylene content “Soarnol[®]” shows high fuel barrier property.





2) Fuel C system

EVOH	Fuel Permeability (g·20 μ m/m ² ·day)
Soarnol 25mol%	0.05
Soarnol 29mol%	0.05
Soarnol 32mol%	0.05



In case of Fuel C system which doesn't contain alcohol, each "Soarnol[®]" shows high fuel barrier property. Its barrier level is the best of all three fuel systems.

Data Prepared : 1 Apr. 2012

