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) μm

: Surface Area 200cm^2 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

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(2)Result

1) E10 system

EVOH	Fuel Permeability (g 20μ/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・20μm/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.

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