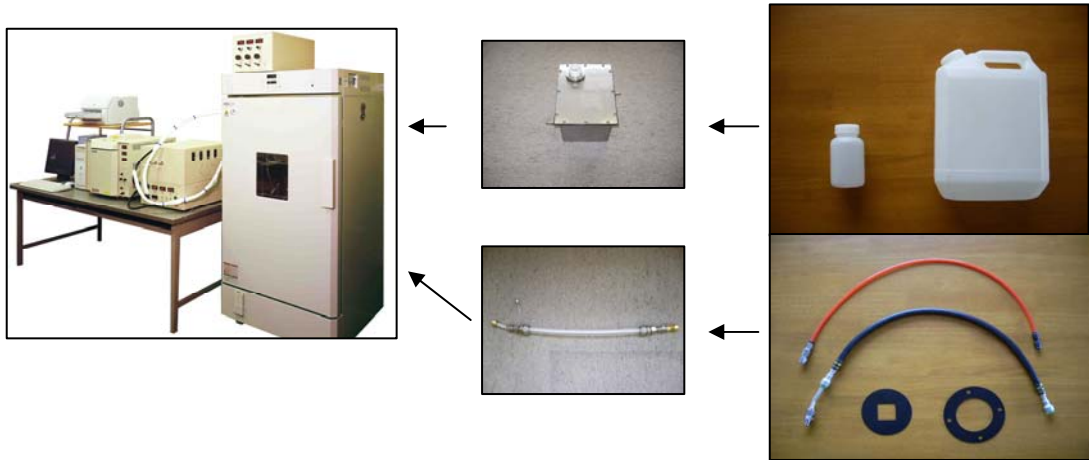


New measurement technique

GTR SHED with Gas Chromatography

GTR-SHED contributes to developing very high barrier automotive parts like hoses, tubes, sealing, gaskets and small resin tanks with gasoline (E10, CE10), refrigerants (R-1234yf, R-134a) and others.

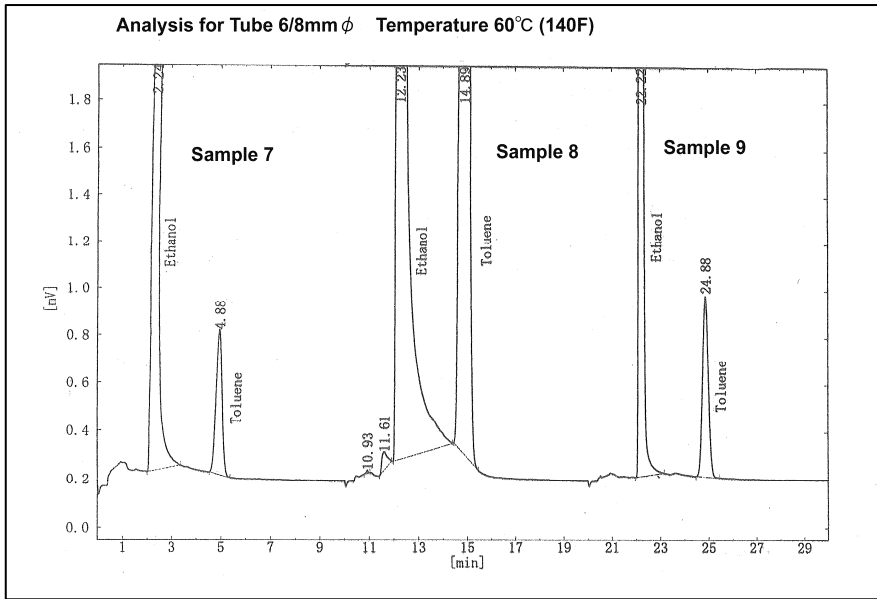


GTR SHED with GC	MINI-SHED
Separates permeate into individual components (total permeation amount of individual components can be determined from the data)	Total hydro carbon only No qualitative or quantitative analysis
No contamination	Background reduction (preparation for cleanup) required
Small dead space in micro chamber and continuously flowing purge gas with 25cc → No dilution → High sensitivity	Big dead space in SHED → dilutes the permeate → Low sensitivity
Shows changes in liquid concentration of the permeate over time	
Greatest ease of use with proprietary software	

Our gas chromatography based systems provide a precise and reproducible account of the permeation characteristics of each element tested. This GC method is now applied for the permeation testing of tubes, pipes, gaskets and tanks. The sample is set in the test chamber in the oven and the permeate goes to GC.

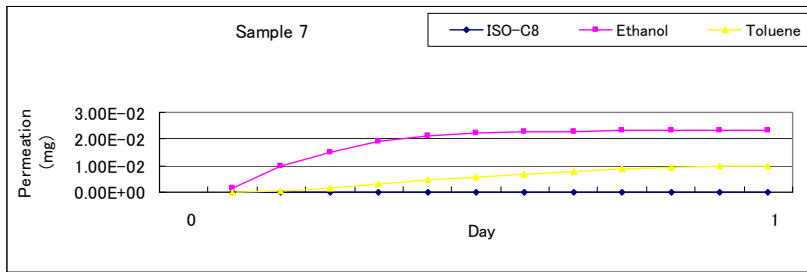
Bellex International Corporation

200 Bellevue PKWY, Suite 180
 Wilmington DE 19809 U.S.A
 Tel: +1-302-791-5180
 Fax: +1-302-791-5190



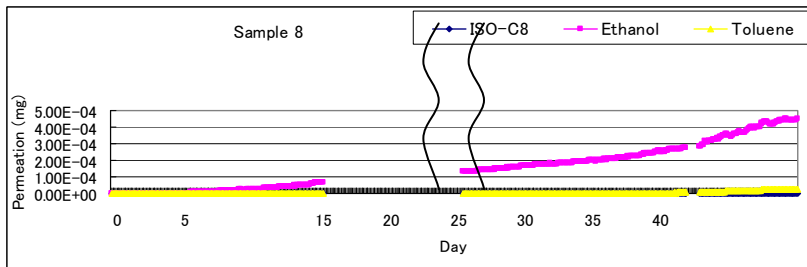
Permeation
Unit : g/m²·24hr

Pre-treatment 25days



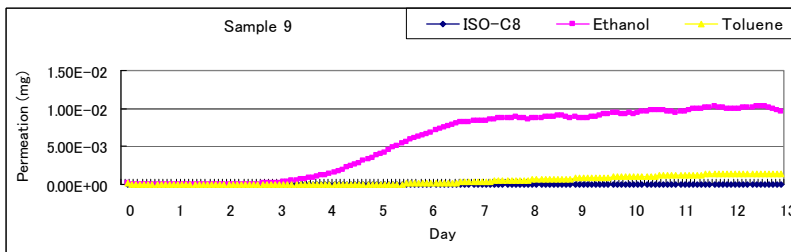
QISO-C8 <4.E-03
Qethanol 1.43E+01
Qtoluene 1.16

Pre-treatment 1 day



QISO-C8 <2.E-05
Qethanol 2.02
Qtoluene 2.76E-02

Pre-treatment 5 days



QISO-C8 <4.E-06
Qethanol 1.86
Qtoluene 2.33E-02