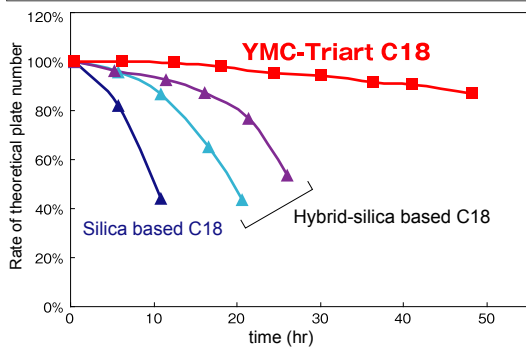


## YMC-Triart C18 : Great durability - Wide pH range and long lifetime - S100204AE

Triart C18 has excellent durability in difficult conditions such as acidic or alkaline mobile phases, and at temperatures above ambient. Triart users - in method development or in routine use - are able to better optimize their separations using conditions normally thought to be "out of bounds"... and achieve repeatable success. This advantage carries over into mainstream applications as well. The combined effects of pressure, temperature, and pH take their toll on conventional columns. Triart can be expected to outlast conventional columns by a factor of 10x or more.

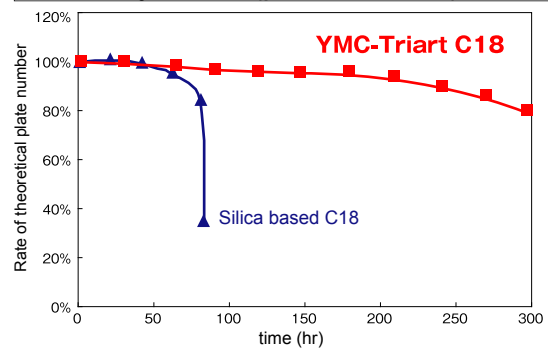
### Durability in high pH

#### Phosphate buffer (pH 11.5, 40°C)



Column : 5  $\mu$ m, 150 X 4.6 mm I.D.  
Eluent : 50 mM K<sub>2</sub>HPO<sub>4</sub>-K<sub>3</sub>PO<sub>4</sub> (pH 11.5)/methanol (90/10)  
Flow rate : 1.0 mL/min  
Temperature : 40°C  
Sample : benzyl alcohol

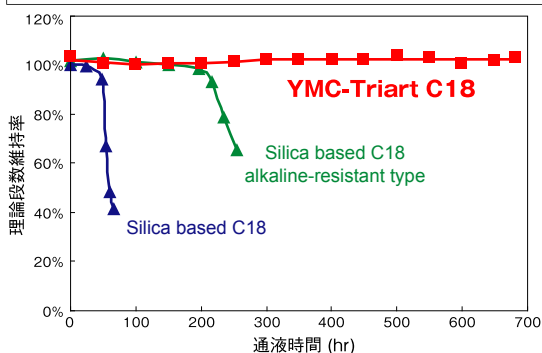
#### Triethylamine (pH 11.5, 40°C)



Column : 5  $\mu$ m, 150 X 4.6 mm I.D.  
Eluent : 50 mM triethylamine (pH 11.5)/methanol (90/10)  
Flow rate : 1.0 mL/min  
Temperature : 40°C  
Sample : benzyl alcohol

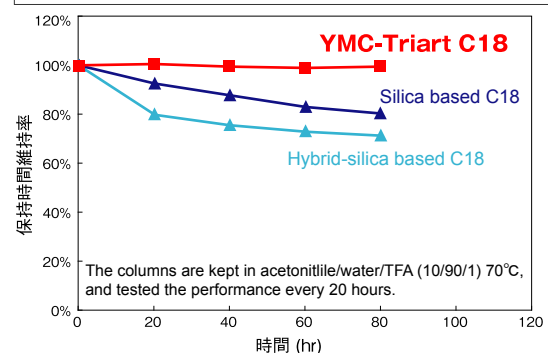
### Durability in high temperature

#### pH 6.9, 70°C



Column : 5  $\mu$ m, 50 X 2.0 mm I.D.  
Eluent : 20 mM KH<sub>2</sub>PO<sub>4</sub>-K<sub>2</sub>HPO<sub>4</sub> (pH 6.9)/acetonitrile (90/10)  
Flow rate : 0.2 mL/min  
Temperature : 70°C  
Sample : phenol

#### pH 1, 70°C



The columns are kept in acetonitrile/water/TFA (10/90/1) 70°C, and tested the performance every 20 hours.

Test conditions  
Column : 5  $\mu$ m, 50 X 2.0 mm I.D.  
Eluent : acetonitrile/water (60/40)  
Flow rate : 0.2 mL/min  
Temperature : 37°C  
Sample : butyl benzoate