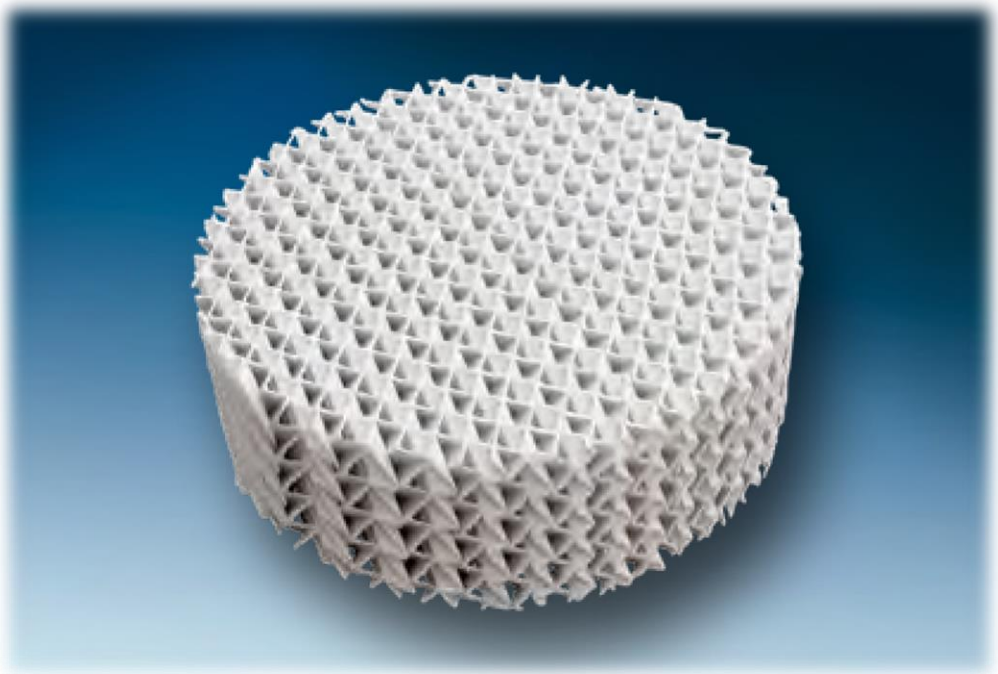
Raschig-Pak Ceradur®

Product Bulletin 601



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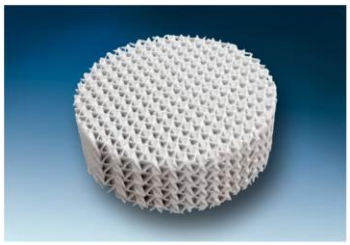
Raschig-Pak Ceradur®

The CERADUR® is a special ceramic with unique chemical composition, what results in superior chemical resistance. This often allows the use of CERADUR® as alternative to more expensive glass packings.



Raschig-Pak Ceradur®

Size	Style		Surface (m^2/m^3)	Free Vol. %
100	X	Y	100	83
125	X	Y	125	82
160	X	Y	160	81
200	X	Y	200	80
250	X	Y	250	80
300	X	Y	300	79
350	X	Y	350	78
400	X	Y	400	78
450	X	Y	450	77
500	X	Y	500	76
550	X	Y	550	75
600	X	Y	600	75
650	X	Y	650	74
700	X	Y	700	73
750	X	Y	750	72
1000	X	Y	1000	70
1200	X	Y	1200	68

Y = Angle of inclination 45°
X = Angle of inclination 60°

The Raschig-Pak Ceradur® is available with different design features, like:

- glazed / unglazed
- perforated
- dimpled
- chamfered

Raschig-Pak Ceradur®

The Raschig-Pak Ceradur® is a traditional channel type structure packing, as it is widely used in the chemical and petrochemical industry.
Decades of experience allow for reliable design with high capacities and low pressure drops.

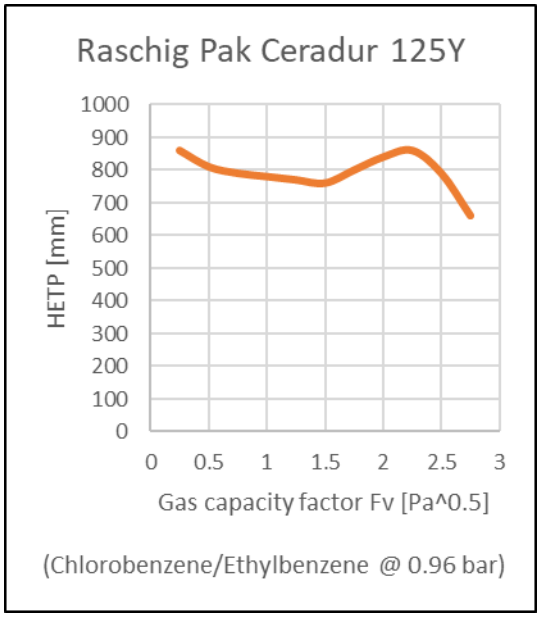
Its advantage is the unique composition of the ceramic, that provides superior chemical resistance compared to conventional ceramic materials.
It is resistant against nearly all mineral and organic acids and partly resistant against alkalis. Typical applications include:

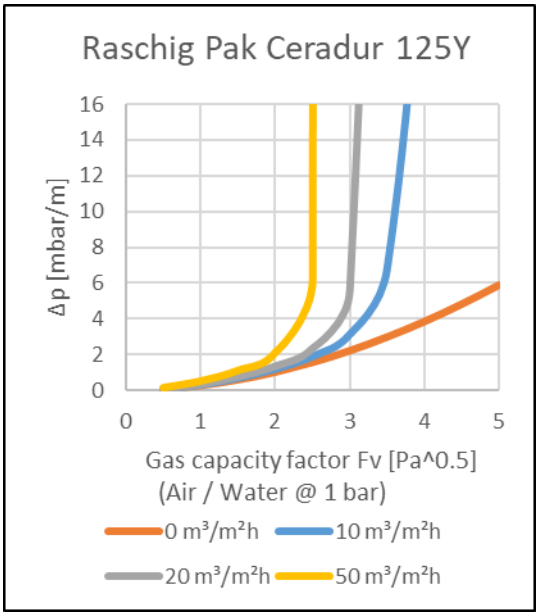
- formic acid
- acetic acid
- chloroacetic acid
- chlorinated hydrocarbons
- fatty acid anhydride
- acyl chloride
- sulfuric acid
- nitric acid
- hydrochloric acid
- hydrobromic acid
- halogenides
- chlorinated aromatics
- naphthenic acid
- acrylonitrile

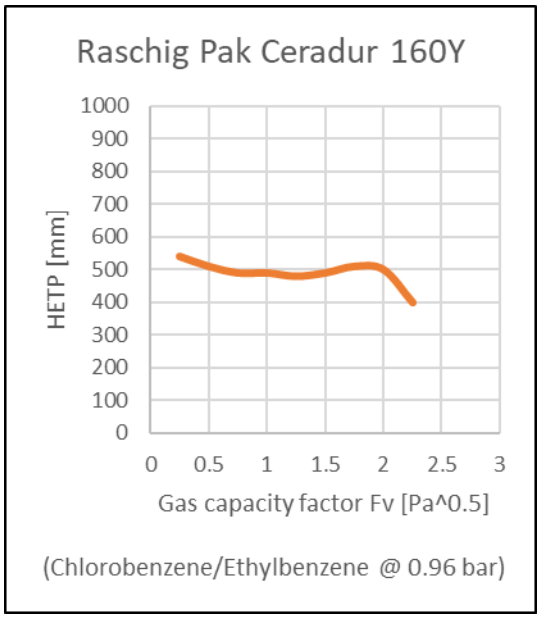
and others.

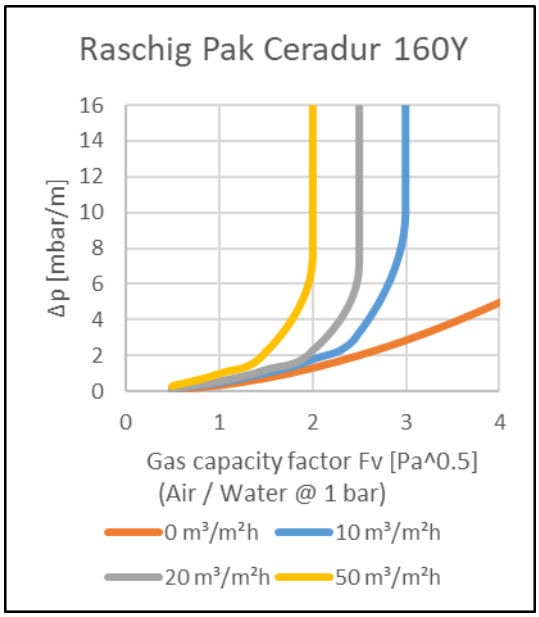
Let us know if you are interested in the Raschig-Pak Ceradur® for your application.

Raschig-Pak Ceradur®









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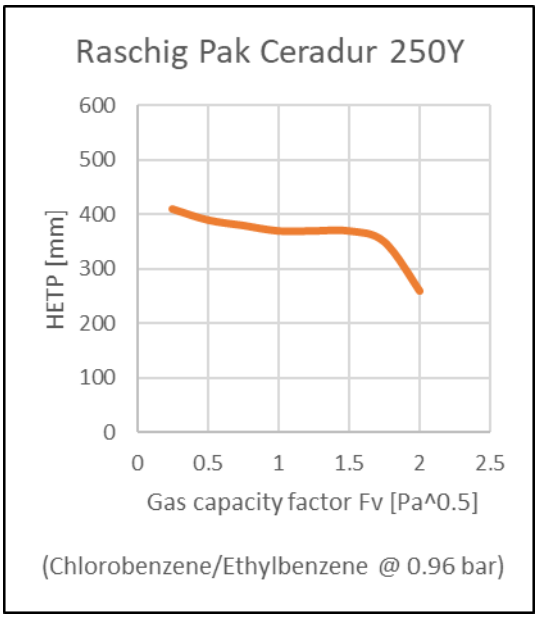

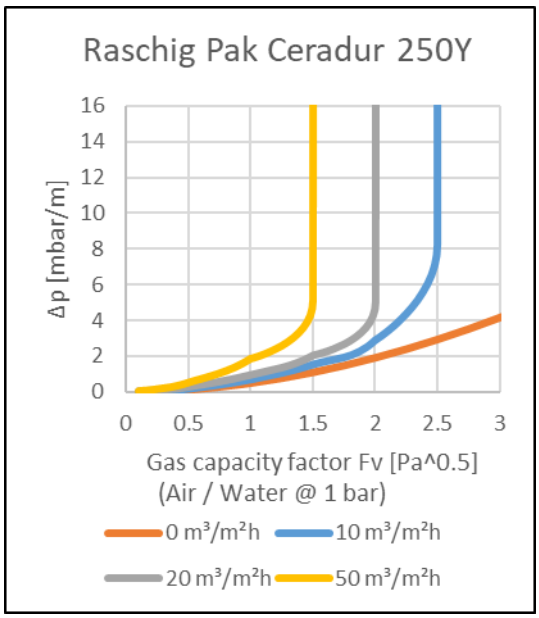

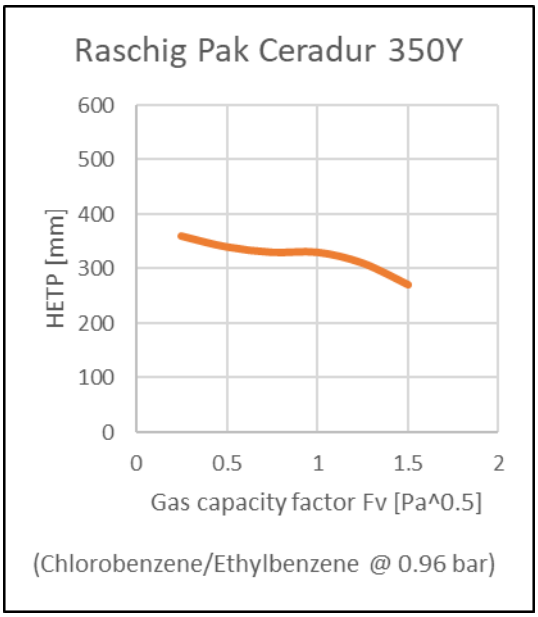

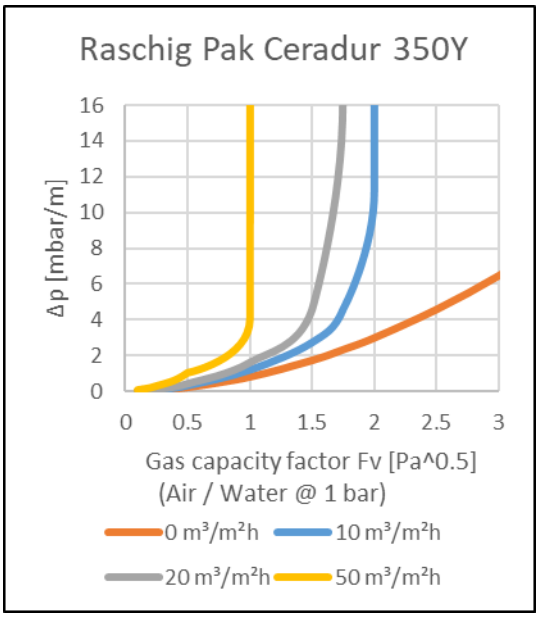

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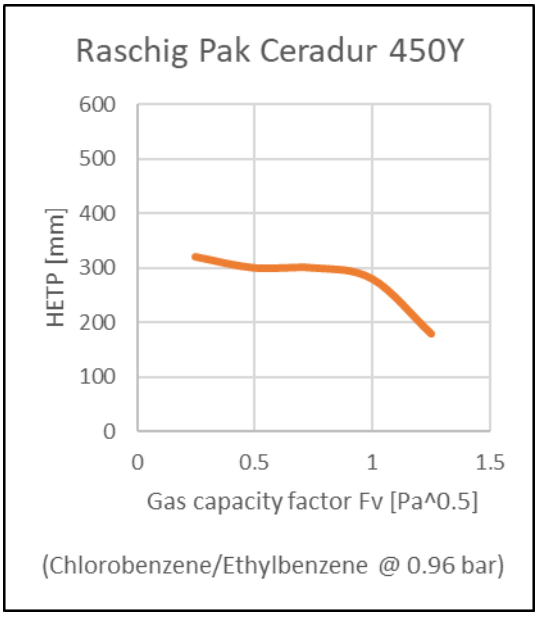

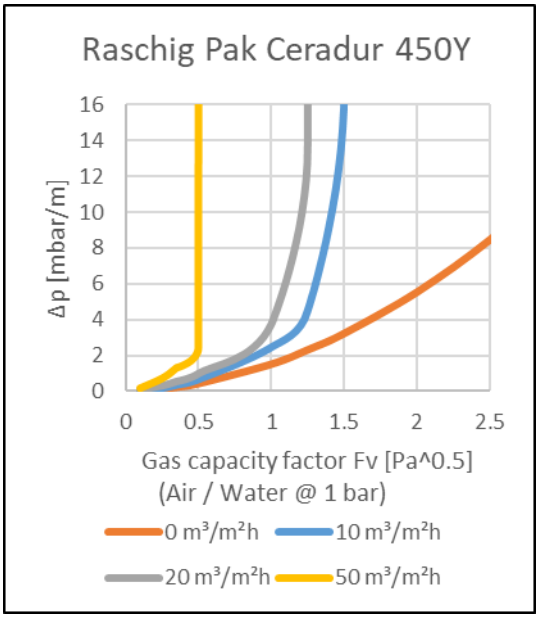

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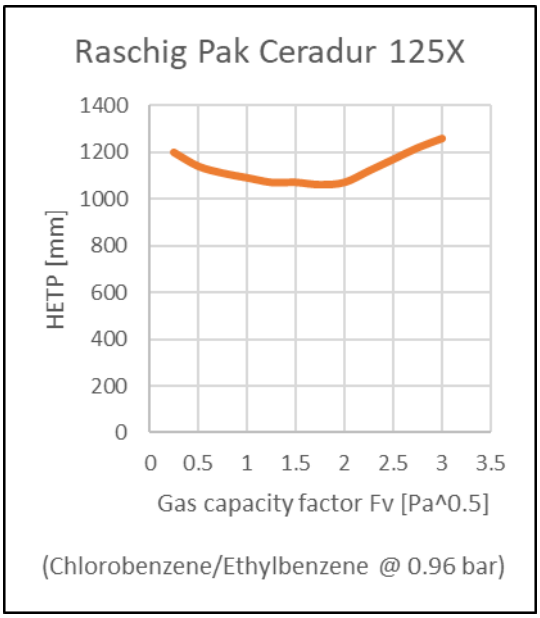

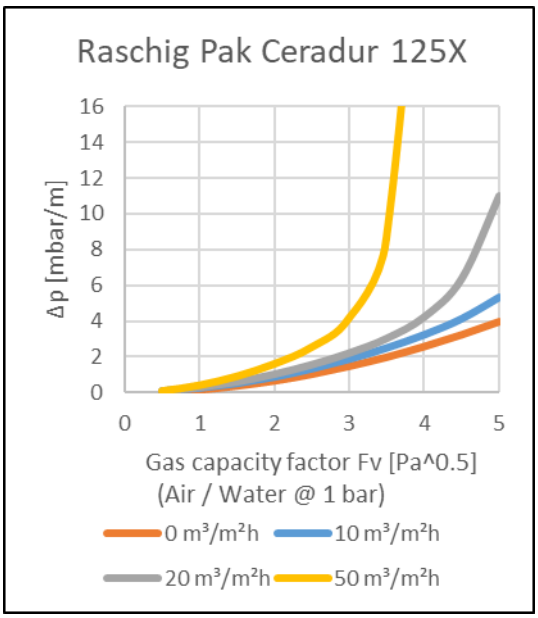

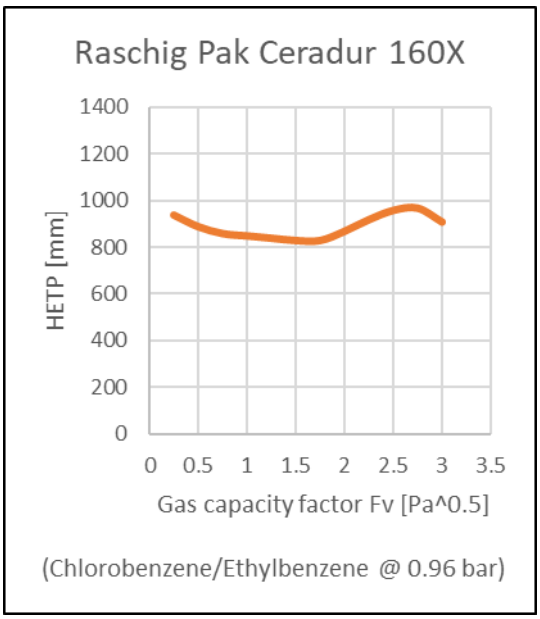

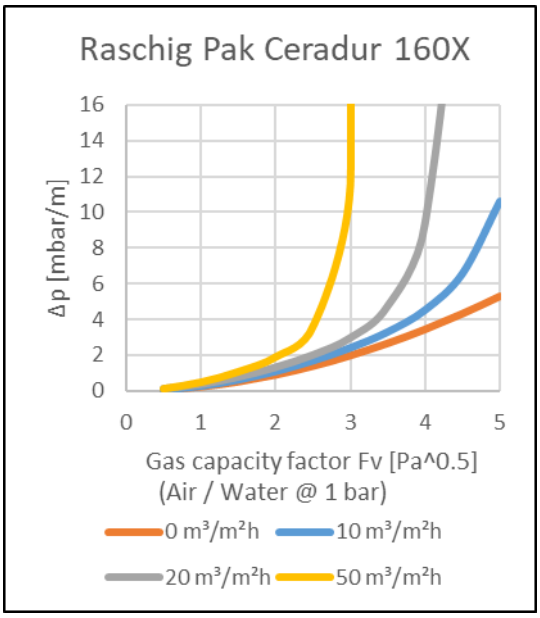

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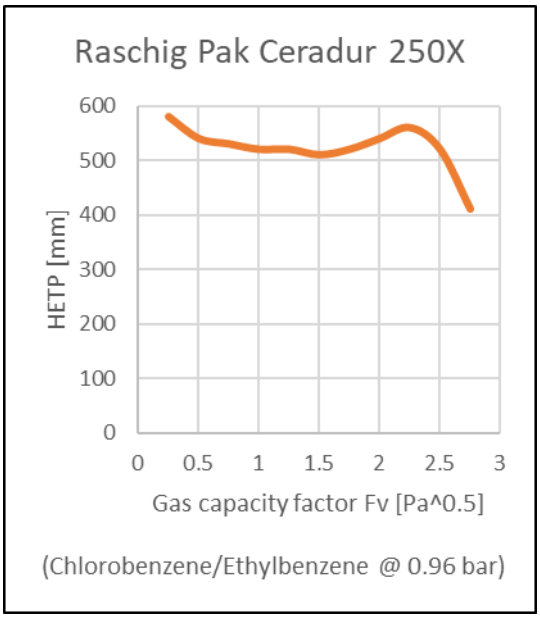

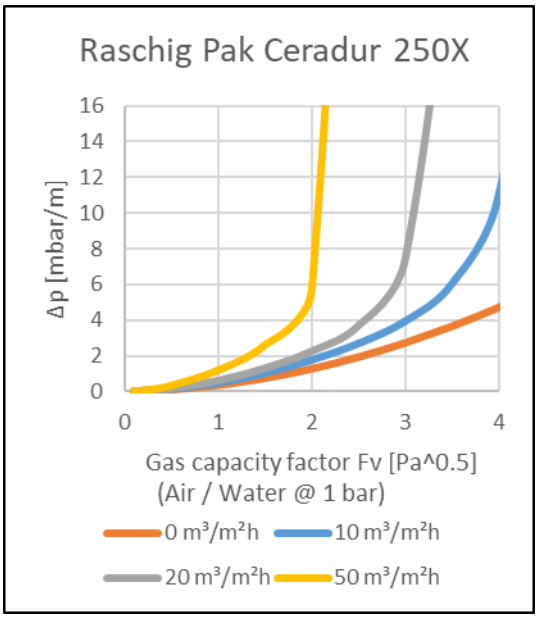

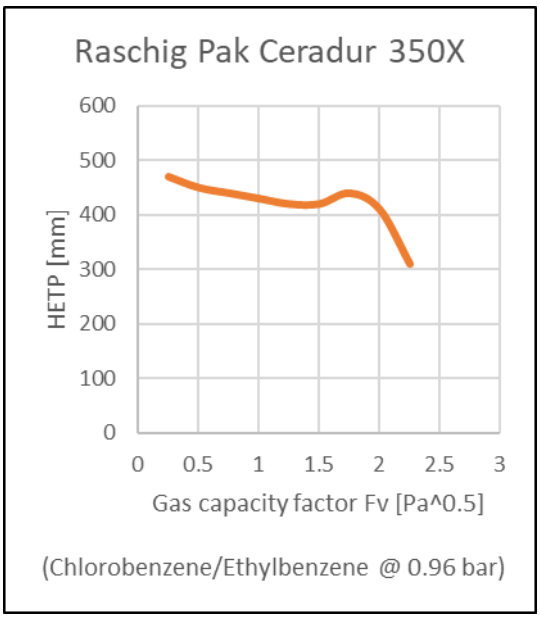

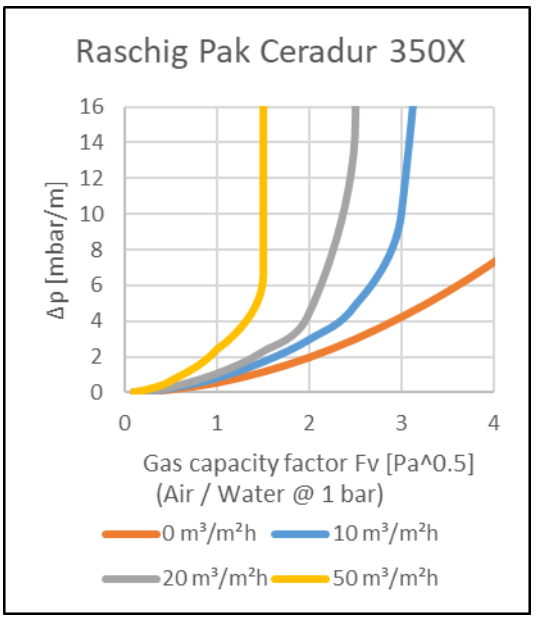

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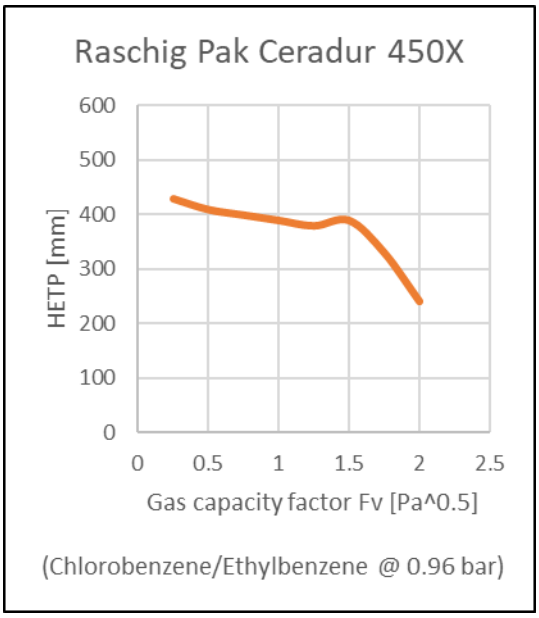

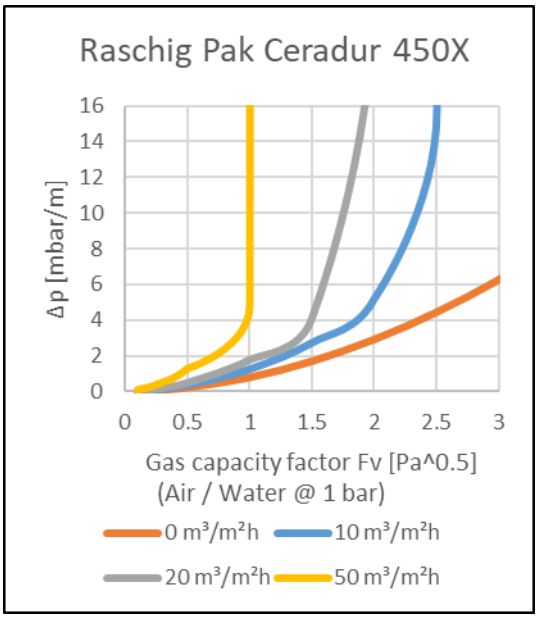

Nomenclature

Latin symbols

a	m^2/m^3	specific surface area of packing
a_{Ph}	m^2/m^3	specific effective surface area of packing
C_S	m/s	$= u_V (\rho_V /(\rho_L - \rho_V))^{1/2}$ capacity factor
D_S, d_S	m	column diameter
F_V, F_G	m/s $(kg/m^3)^{1/2}$	$= u_V (\rho_V)^{1/2}$ gas capacity factor
F	-	Packing factor
g	m/s^2	$= 9.81\ m/s^2$, acceleration
H	m	section height
HETP	m	height equivalent to a theoretical plate
HTU_{OV}	m	overall gas side height of a transfer unit
$k_G a_{Ph}$	1/s	volumetric mass transfer coefficient in gas phase
$k_L a_{Ph}$	1/s	volumetric mass transfer coefficient in liquid phase
L	kg/h	Liquid mass flow rate
h_L	m^3/m^3	superficial liquid hold-up
n_{th}	-	number of theoretical stages
p	bar	pressure
u_L	m^3/m^2h	superficial liquid velocity
u_V	m/s	superficial gas velocity
V, G	kg/h	Vapor mass flow rate

Greek symbols

$\beta_V a_{Ph}$	1/s	volumetric mass transfer coefficient in gas phase
$\beta_L a_{Ph}$	1/s	volumetric mass transfer coefficient in liquid phase
ρ_L	kg/m^3	liquid density
ρ_V	kg/m^3	gas density
$\Delta p/H$	mbar/m	specific pressure drop
η	Pas, kg/(ms)	dynamic viscosity

Subscripts

Fl	flooding condition
L	liquid phase
V	vapour phase