Performance characteristics

MASSdek® 150 HTC

Structured packings for scrubbers and strippers



MASSdek® 150 HTC

Components for Mass Transfer

For minor dirt load and medium separation requirements

Important Information

The given data illustrates the ideal characteristics of mass transfer performance and pressure drop of GEA 2H structured packing. The data has been collected from a test tower and is only valid for uniform air and water distribution before and after the packing. The optimum performance is only reached after a sufficient wetting period of 2-3 months. The performance of the process not only depends on the performance of the structured packing but also significantly on the boundary conditions of the tower, the effects of initial liquid and gas distribution, mixture and concentrations of multi component liquid and gaseous media and others more.

Using these data the designer should add a sufficient safety margin on his basic design. The actual mass transfer performance can deviate significantly from the ideal characteristic data of the structured packing mentioned within this data sheet.

GEA 2H Water Technologies GmbH does not take any responsibility for any calculation to establish the size of tower with our data no matter the scope or cause in law. We reserve the right to amend data without prior notice.

MASSdek® 150 HTC

Technical Data	PP	PVC
Void ratio	<97 %	
Specific surface area	150 m²/m³	
Channel inclination	60°	
Layer height	305 mm	

Technical Data	PP	PVC
Max. length	2400 mm	
Max. width	600 mm	
Standard height	305 or 610 mm	
Continuous application temperature	70 °C	55 °C
Max. application temperature*	80 °C	60 °C

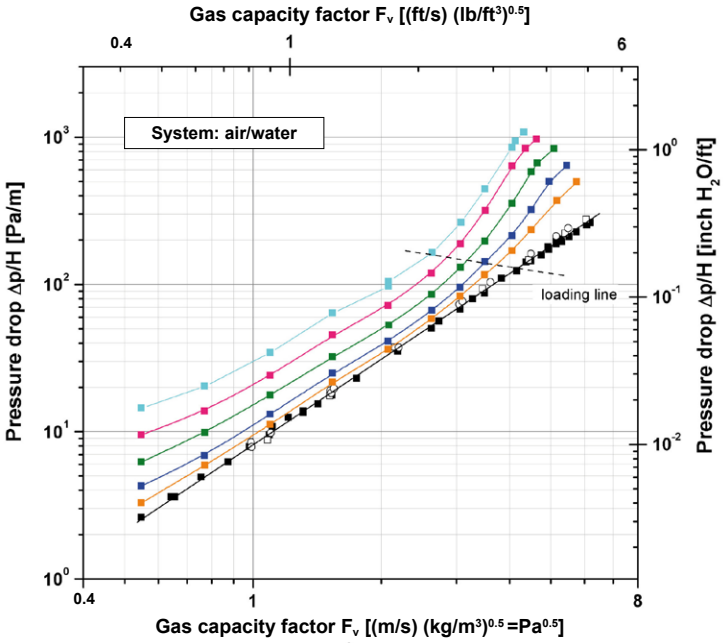
*For PVDF, higher temperatures, special compounds or individual chemical exposure please contact us.

Pressure Drop

Pressure drop of dry packed bed $\Delta p_0/H$ and of irrigated packed bed $\Delta p/H$ as a function of gas capacity factor F_V and at different specific liquid loads u_L valid for plastic packing, type MASSdek® 150 HTC (PP).
System: air/water
p = 1 bar, T = approx. 298 K

MASSdek® 150 HTC (PP)
a = 150 m²/m³ (45.8 ft²/ft³)
ε = 94.5 %
d_s = 0.60 m (2 ft)

Liquid rate u_L [m³/m²h]	[gpm/ft²]
0 (H=3.0 m)	0 (H=10 ft)
0 (H=1.2 m)	0 (H=4 ft)
0 (H=1.5 m)	0 (H=5 ft)
10	4.1
20	8.2
40	16.4
60	24.6
80	32.8



Capacity

Capacity diagram for the MASSdek® 150 HTC structured packing (PP). Comparison of the investigated packing with random 50 mm plastic Pall rings (PP).
System: air/water
p = 1 bar, T = approx. 298 K

—■— MASSdek® 150 HTC
□ Pall ring 50

MASSdek® 150 HTC (PP)	Pall ring 50 (PP)
a = 150 m²/m³ (45.8 ft²/ft³)	a = 110 m²/m³ (33.6 ft²/ft³)
ε = 94.5 %	ε = 92.0 %
d_s = 0.60 m (2 ft)	d_s = 0.45 m (1.5 ft)
H = 3.00 m (10 ft)	H = 2.00 m (6.6 ft)

