

2H MASSdek® 250 HTE PERFORMANCE CHARACTERISTICS

Structured packings for scrubbers and strippers



2H MASSdek® 250 HTE

For clean media and minor dirt load with higher separation requirements

Important Information

The given data illustrates the ideal characteristics of mass transfer performance and pressure drop of our 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. We do 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.

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Technical Data		
	PP/PVC	
Void ratio	<96 %	
Specific surface area	$240 \text{ m}^2/\text{m}^3$	
Channel inclination	45°	
Layer height	305 mm	

Technical Data			
	PP	PVC	
Max. length	2400 mm		
Max. width	600 mm		
Standard height	305 mm		
Continuous application temperature	80 °C	55 °C	
Max. application temperature*	120 °C	60 °C	

^{*2}H MASSdek is produced from special PP compounds. For temperatures above 70 °C and exposure to chemicals we apply special additives or we recommend PVDF. Please contact us for our recommendation.

Pressure Drop

Pressure drop of dry packed bed $\Delta p_{\mbox{\tiny 0}}/H$ 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 2H MASSdek® 250 HTE (PP).

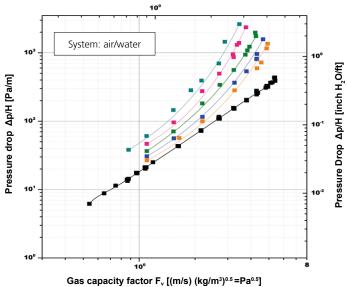
System: air/water

p = 1 bar, T = approx. 298 K

2H	2H MASSdek® 250 HTE (PP)		
a	=	240 m ² /m ³	(73.2 ft ² /ft ³)
3	=	96 %	
d _s	=	0.60 m	(2 ft)

Liquid rate u _L [m³/m²h]	[gpm/ft²]
O	0
10	4.1
20	8.2
40	16.4
6 0	24.6
80	32.8

Gas capacity factor F_{ν} [(ft/s) (lb/ft³)^{0.5}]



Capacity

Capacity diagram for the 2H MASSdek® 250 HTE structured packing (PP). Comparison of the investigated packing with random 25 mm plastic Pall rings (PP).

System: air/water

p = 1 bar, T = approx. 298 K



2H MASSdek® 250 HTE (PP)	Pall ring 25 (PP)
$a = 240 \text{ m}^2/\text{m}^3 (73.2 \text{ ft}^2/\text{ft}^3)$	$a = 235 \text{ m}^2/\text{m}^3 (71.7 \text{ ft}^2/\text{ft}^3)$
ε = 95.8 %	ε = 87.6 %
$d_s = 0.60 \text{m}$ (2 ft)	$d_s = 0.30 \text{m} (1 \text{ft})$
H = 1.54 m (5 ft)	H = 1.40 m (4.5 ft)

