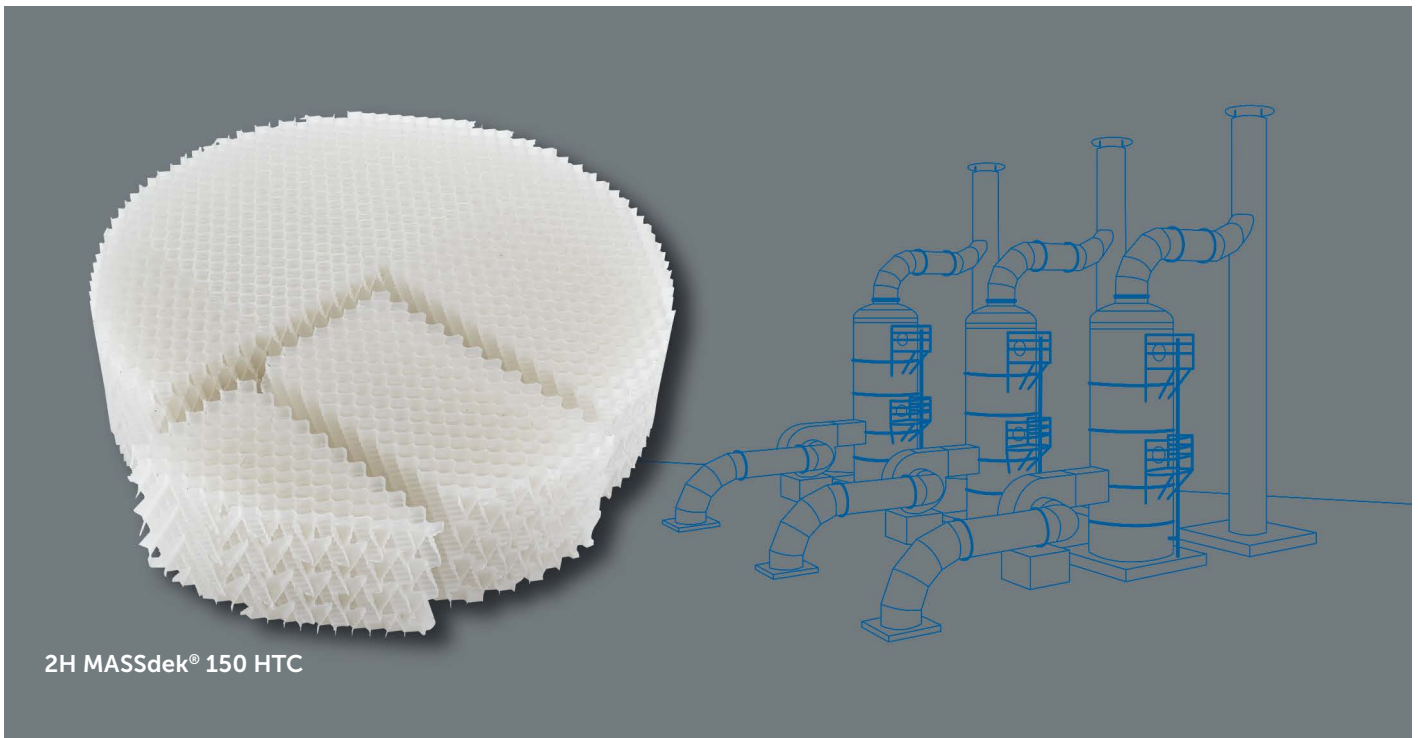


# 2H MASSdek® 150 HTC PERFORMANCE CHARACTERISTICS

Structured packings for scrubbers and strippers



2H MASSdek® 150 HTC

## 2H MASSdek® 150 HTC

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 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.

| Technical Data        |                                    |
|-----------------------|------------------------------------|
|                       | PP/PVC                             |
| Void ratio            | <96 %                              |
| Specific surface area | 150 m <sup>2</sup> /m <sup>3</sup> |
| Channel inclination   | 60°                                |
| 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 |

\*2H 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  $\Delta p_0/H$  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® 150 HTC (PP).

System: air/water

$p = 1 \text{ bar}$ ,  $T = \text{approx. } 298 \text{ K}$

| 2H MASSdek® 150 HTC (PP)  |  |
|---|--|
| $a = 150 \text{ m}^2/\text{m}^3$ (45.8 ft <sup>2</sup> /ft <sup>3</sup> ) |  |
| $\epsilon = 94.5 \%$  |  |
| $d_s = 0.60 \text{ m}$ (2 ft)   |  |

| Liquid rate $u_L$                 |                            |  |
|-----------------------------------|----------------------------|--|
| $[\text{m}^3/\text{m}^2\text{h}]$ | $[\text{gpm}/\text{ft}^2]$ |  |
| ■ 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

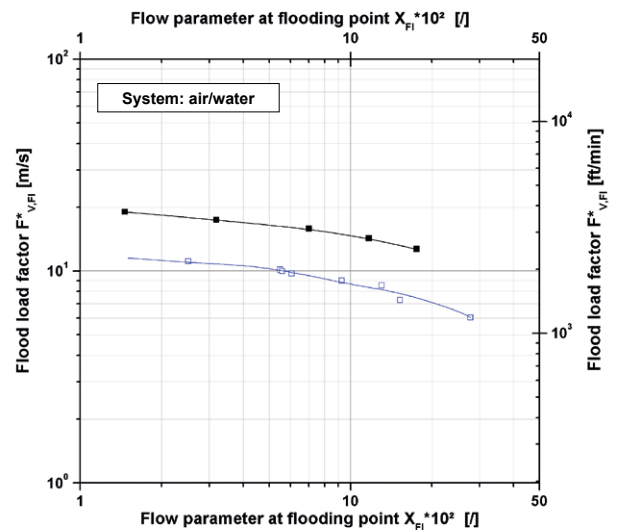
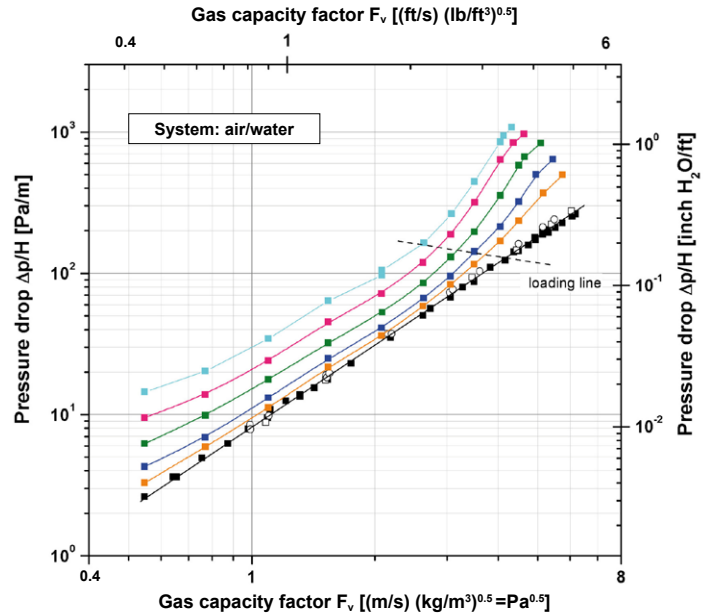
Capacity diagram for the 2H MASSdek® 150 HTC structured packing (PP). Comparison of the investigated packing with random 50 mm plastic Pall rings (PP).

System: air/water

$p = 1 \text{ bar}$ ,  $T = \text{approx. } 298 \text{ K}$

|                       |
|-----------------------|
| ■ 2H MASSdek® 150 HTC |
| □ Pall ring 50        |

| 2H MASSdek® 150 HTC (PP)  | Pall ring 50 (PP)   |
|---|---|
| $a = 150 \text{ m}^2/\text{m}^3$ (45.8 ft <sup>2</sup> /ft <sup>3</sup> ) | $a = 110 \text{ m}^2/\text{m}^3$ (33.6 ft <sup>2</sup> /ft <sup>3</sup> ) |
| $\epsilon = 94.5 \%$  | $\epsilon = 92.0 \%$  |
| $d_s = 0.60 \text{ m}$ (2 ft)   | $d_s = 0.45 \text{ m}$ (1.5 ft)   |
| $H = 3.00 \text{ m}$ (10 ft)  | $H = 2.00 \text{ m}$ (6.6 ft)   |



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