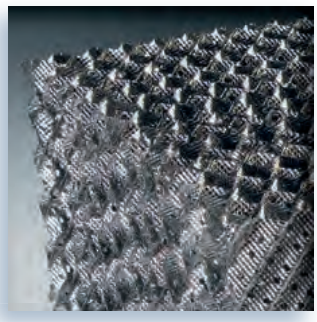
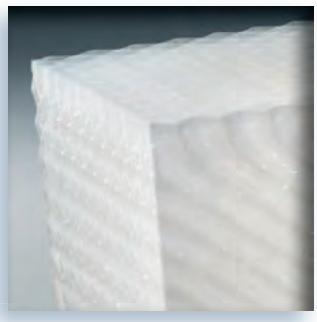
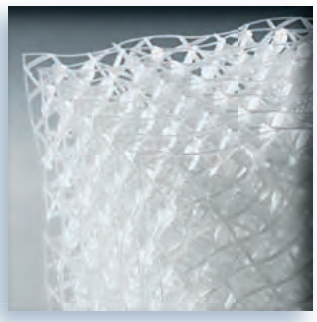
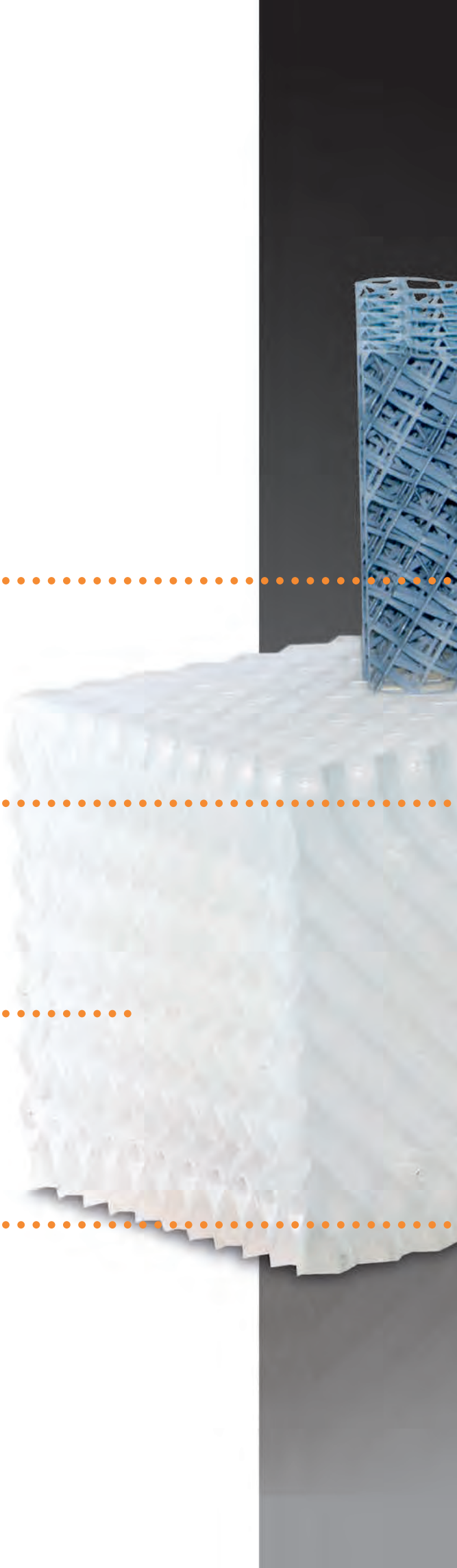




Structured packings
For mass and heat transfer processes

Structured packings from RVT Process Equipment

RVT Process Equipment GmbH provides a broad range of innovative and conventional structured packings in both metallic and thermoplastic materials for different applications.

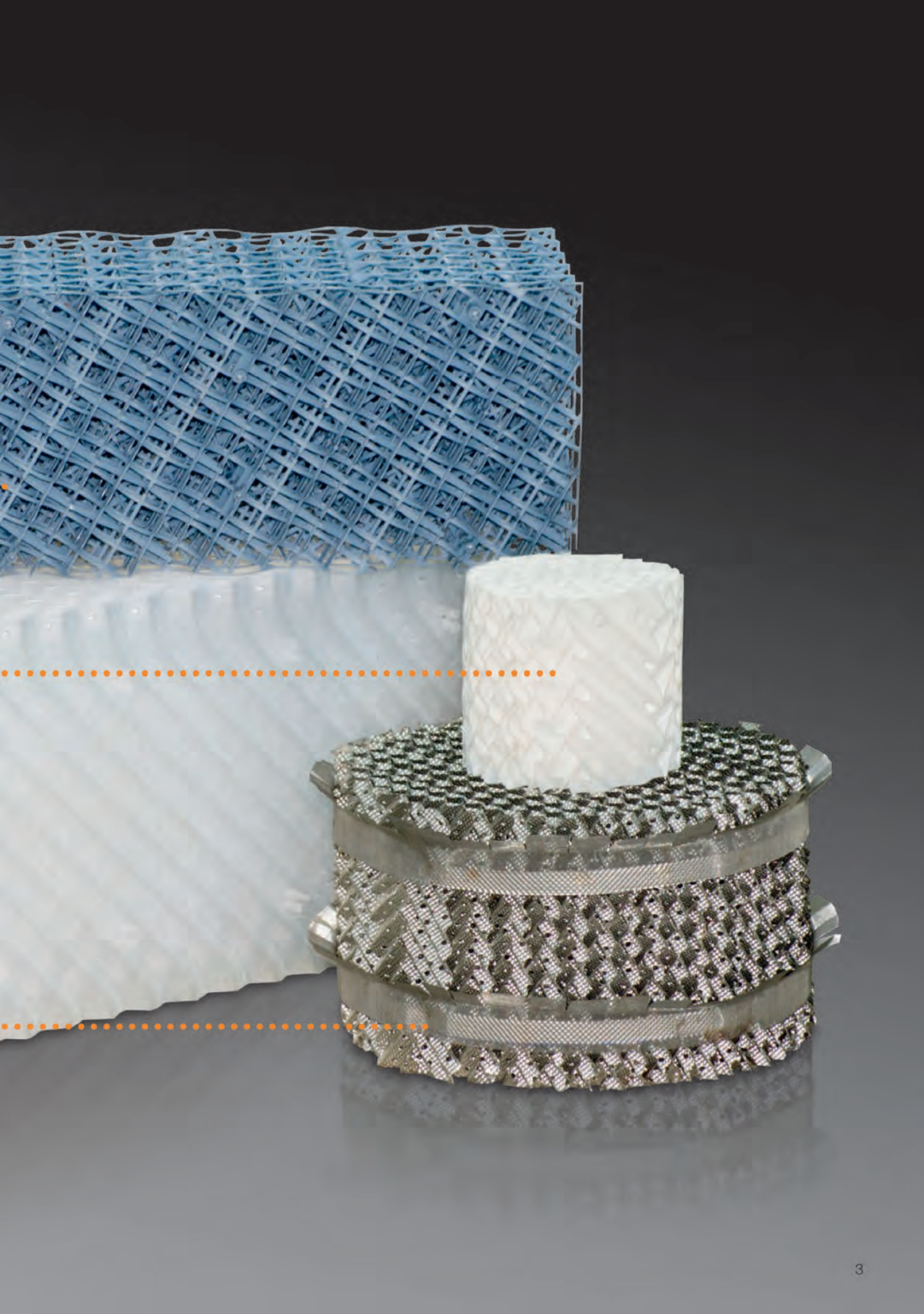


Lattice structured packing
Hiflow® PLUS

Corrugated sheet
structured packing
made of PTFE

Corrugated sheet
structured packing
made of PP

Corrugated sheet
metal structured packing



RMP
RVT **M**etal Structured **P**ackings

RMP is RVT's corrugated sheet metal structured packing line.

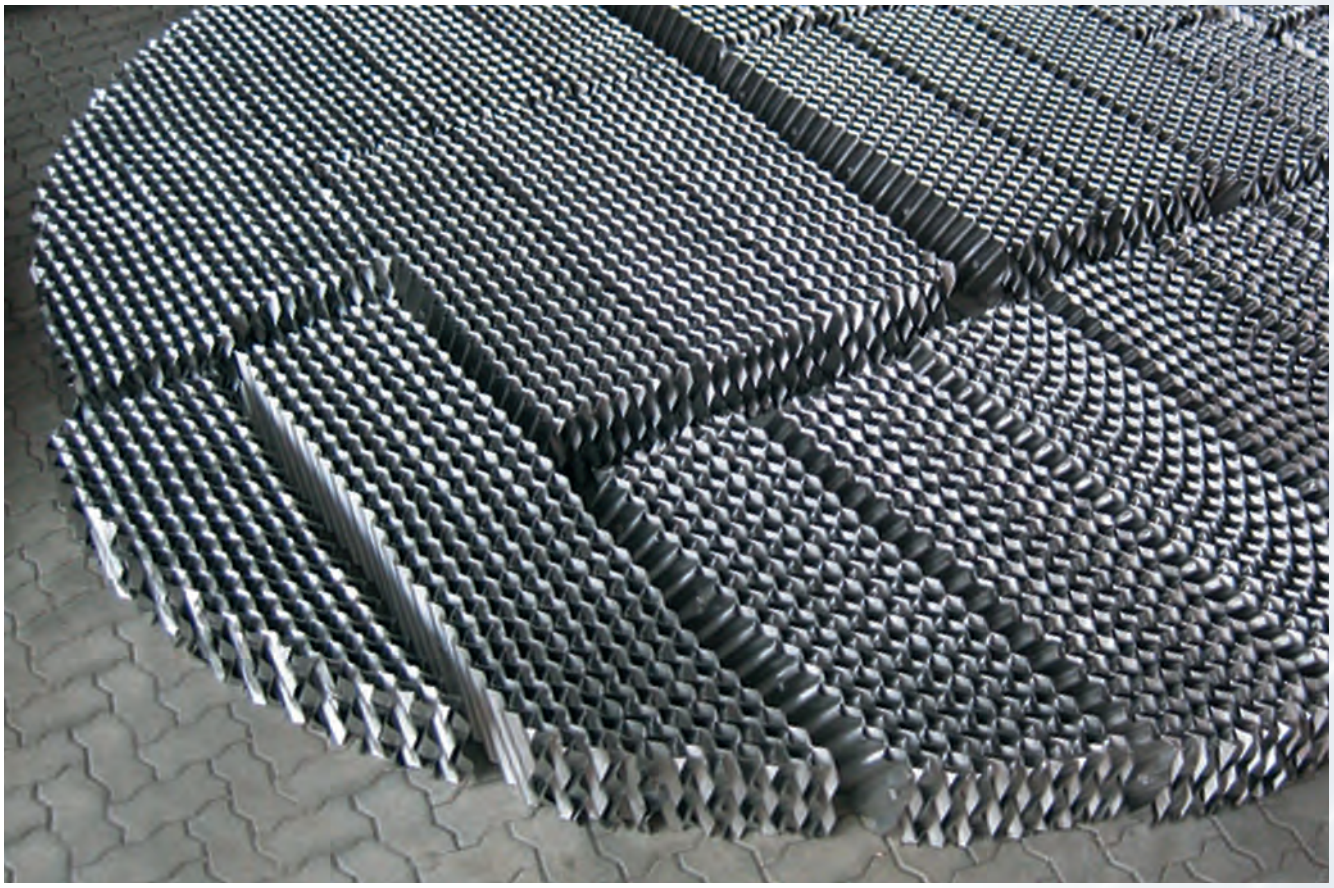
Conventional structured packings, characterized by a constant corrugation angle of 45° (Y-type) or 60° (X-type) to the horizontal, are represented by RVT's RMP N whereas the high capacity line RMP S and SP are characterized by a smooth transition of the 45° corrugation angle in the center to an almost vertical, 90° corrugation angle at each end of the metal sheet.

RMP N Packing size	Specific surface area m^2/m^3
64 X/Y	64
90 X/Y	90
125 X/Y	125
170 X/Y	170
200 X/Y	200
250 X/Y	250
350 X/Y	350

Packings with other specific surfaces are also available on request.

RMP S Packing size	Specific surface area m^2/m^3
125	125
250	250
350	350

RMP SP Packing size	Specific surface area m^2/m^3
250 - 1	250
250 - 2	250



View of a packing layer before assembly into the column

The typical application fields for metal structured packings are processes with following operating conditions:

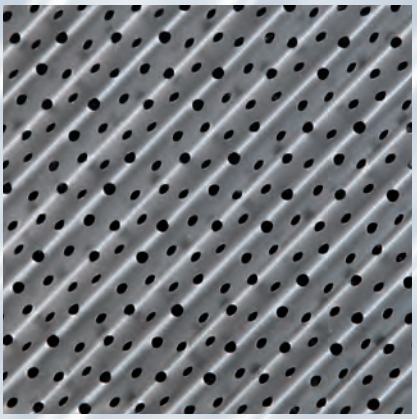
- low irrigation densities
- high gas loads
- low pressure drop
- high separation efficiency required

These operating conditions are common in many vacuum distillation and rectification processes in the chemical and petrochemical industry, as well as in amine scrubbers, C3-, C4-splitters and applications in the field of fine chemicals.

The RMP packings are available in different specific surface areas and corrugation angles as well as in several finishing varieties:

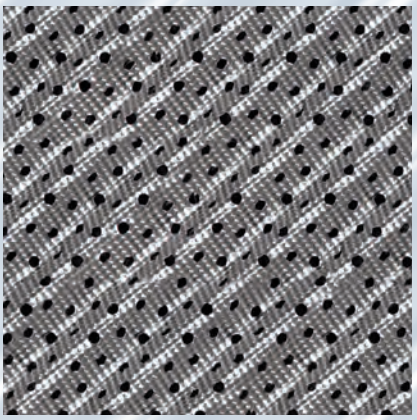
- smooth or textured surface
- perforated or unperforated
- X (60°) or Y (45°) corrugation angles
- standard (type N) or high-capacity (type S) corrugation geometry
- 0.1 to 0.4 mm (0.004 to 0.016 in) metal sheet thickness
- materials: carbon steel, stainless steel, others on request

RMP N250Y structured packing with smooth surface



RMP N250Y structured packing with perforated and smooth surface

RMP N250Y structured packing with textured surface

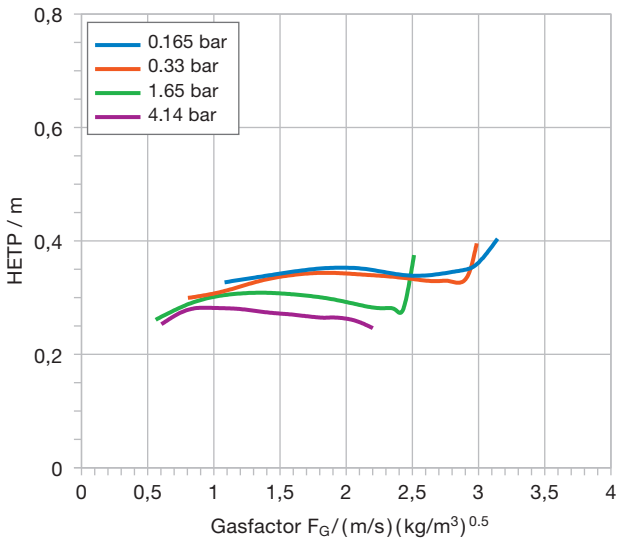


RMP N250Y structured packing with perorated and textured surface

Distillation performances of several RMP N packing types have been measured at the Separation Research Program (SRP) under a wide range of operating conditions and pressures. Following diagrams show the distillation performance results of the most commonly used structured packings RMP N 250Y.

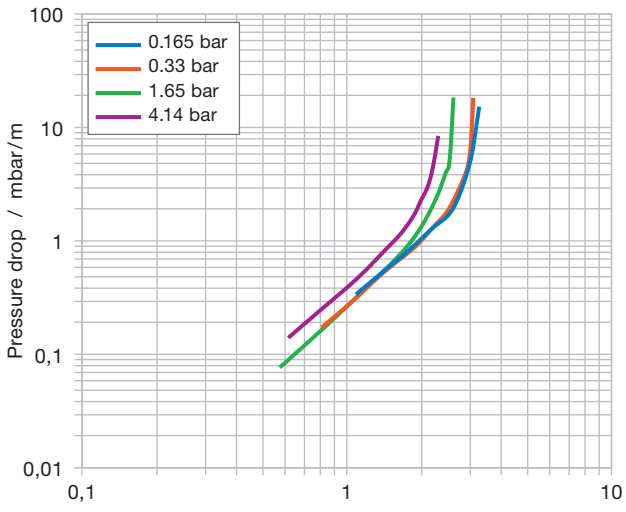
RMP N 250Y – Separation Efficiency

Cyclohexane / n-Heptane, Total Reflux



RMP N 250Y – Pressure drop

Cyclohexane / n-Heptane, Total Reflux



RPP
RVT **P**lastic Structured **P**ackings

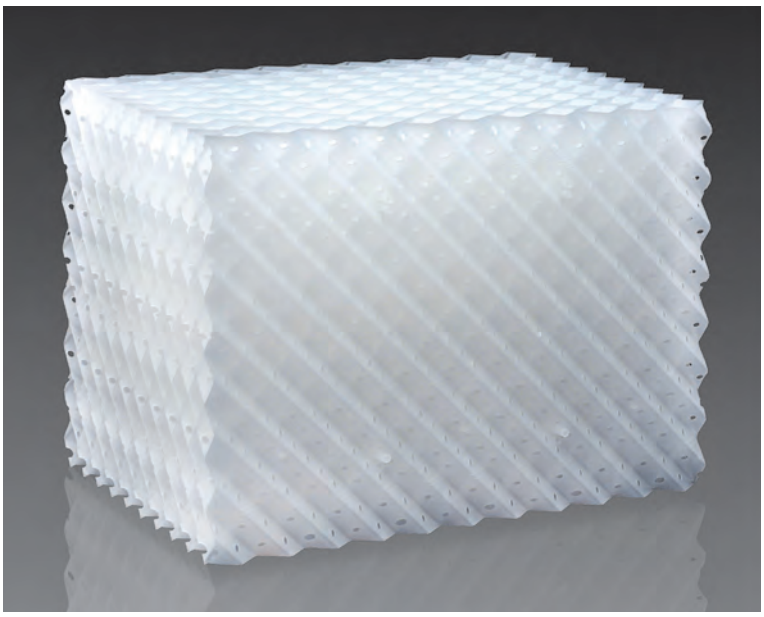
The RPP structured packing line is RVT's family of corrugated sheet structured packings made of thermoplastics. The conventional, N and high capacity, S packing geometries as described for the metal structured packings are also available in the RPP line.

The RPP packings are available in PE, PP and PVDF (others on request).

RPP N Packing size	Specific surface area m^2/m^3
250 Y	250

RPP S Packing size	Specific surface area m^2/m^3
250	250

Packings with other specific surfaces are also available on request



RPP N structured packing type

Hiflow® PLUS Lattice Plastic Structured Packing

Hiflow® PLUS is a product that combines the advantages of random tower packing and conventional structured packings while reducing the limitations of these two mass transfer components.

This lattice structured packing type is particularly suitable for applications that require high capacities at high liquid loads.

The development of Hiflow® PLUS was inspired by the Hiflow® ring, which has a long and successful history with industrial applications.

Hiflow® PLUS Packing type	Specific surface area m^2/m^3
# 1	180
# 2	100
# 3	80

Available raw materials:
PP, PE, PPH, others on request.

Application Fields

Typical applications for Hiflow®PLUS are flue gas scrubbers, strippers (e. g. chlorinated hydrocarbons), pre-coolers in air separation plants or amine scrubbers for CO_2 separation from flue gases as well as heat recovery scrubbers.

In some of these applications, the gas flows to be treated have attained increasingly large throughput volumes, such as in CCS or SO_2 separation processes from flue gases by means of scrubbing. This leads to even greater column diameters and there--fore to high investment costs. Here, Hiflow® PLUS packing offers distinct advantages as the column diameter and the pressure drop can be reduced without significantly affecting the mass transfer efficiency.

The main performance characteristics and advantages of Hiflow®PLUS are:

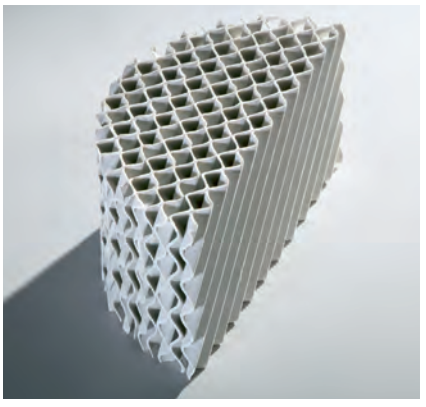
- lower pressure drop than random tower packing
- improved cross flow compared to conventional structured packings
- economic production due to reduced raw material requirement
- no wall wipers required
- easy installation and installable in a horizontal or vertical column, consequently reducing packing transportation costs and installation time and cost at jobsite,
- standard liquid distributor as designed for random packing can be used
- significantly improved resistance against fouling in comparison to conventional structured packings

Structured Packings for Special Process Conditions

For applications with particular operating conditions, RVT Process Equipment offers structured packings made of highly resistant plastics such as PTFE.
Typical applications are HCl absorbers, SO_2 absorbers as well as extraction processes with operating temperatures up to a maximum of 130 °C.

Structured packing made of PTFE in corrugated sheet structure, spec. surface area 300 m^2/m^3 (packings with other specific surface areas available on request)

Ceramic structured packings are mainly used for even higher temperatures and corrosive process conditions.
RVT Process Equipment offers conventional ceramic structured packings in both X (60°) and Y (45°) corrugation angles as well as with specific surface areas from 125 to 450 m^2/m^3.



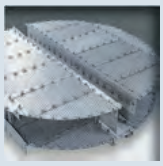
RVT Process Equipment GmbH
Range of products

The way to RVT Process Equipment


Tower packings for mass and heat transfer


Structured packings for mass and heat transfer


Column internals


Mass transfer trays


Biological carrier media


Turn-key units for waste gas scrubbing


Ammonia recovery processes


Combustion plants for the disposal of exhaust air, waste gases and liquid media

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Structured packings
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