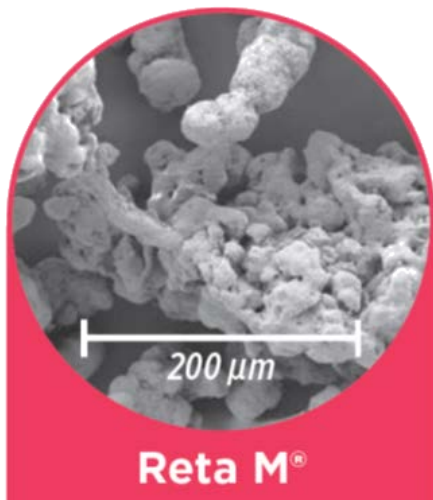


RETA M[®]



MEGGLE's first lactose-free excipient enabling time release formulation through direct compression

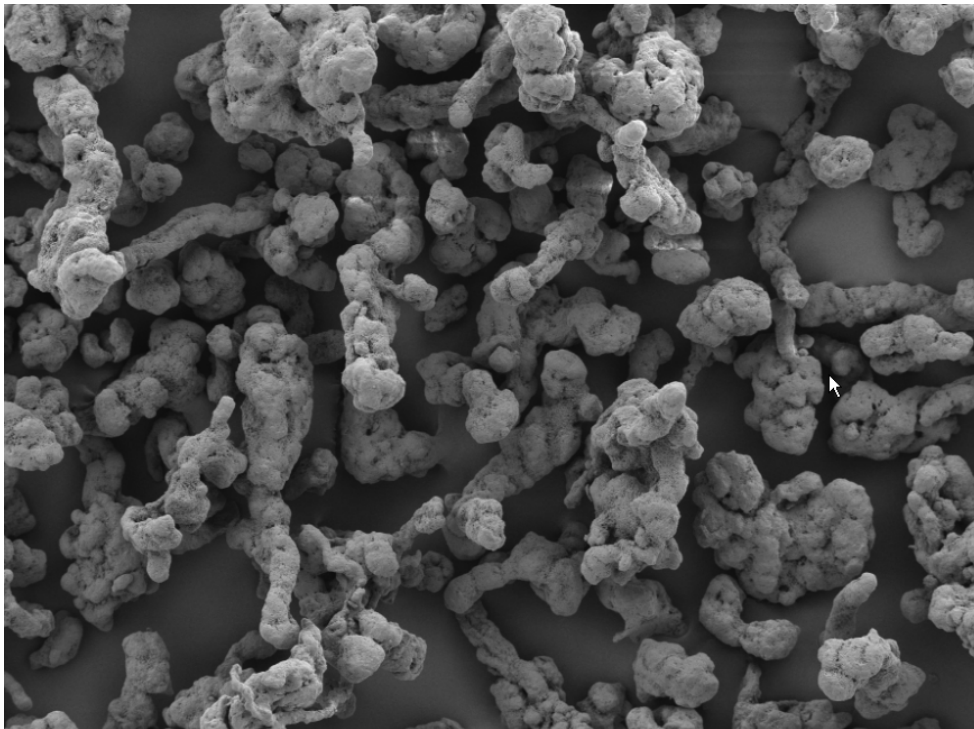
presented by
Dr. Christian Nowak





Experts in Excipients

Appearance



- white, or almost white odourless powder
- free flowing
- partially soluble in cold water

Manufacturing

50 % Mannitol

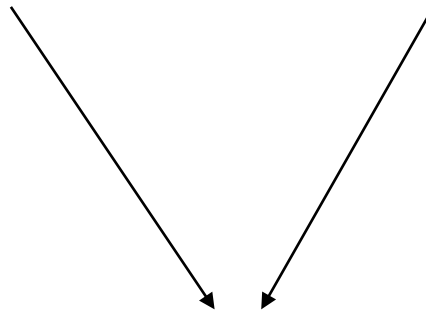
[Ph.Eur./USP-NF/JP]

50 % HPMC

[Ph.Eur./USP-NF/JP]

2208 type, ca. 4000 mPas

(2 % aqueous solution)



Reta M

Manufacturing

50 % Mannitol

[Ph.Eur./USP-NF/JP]

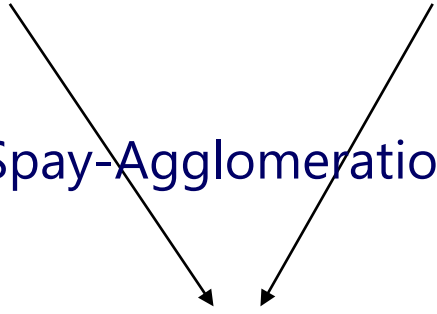
50 % HPMC

[Ph.Eur./USP-NF/JP]

2208 type, ca. 4000 mPas

(2 % aqueous solution)

Spay-Agglomeration



```
graph TD; A[50 % Mannitol] --> D[Spay-Agglomeration]; B[50 % HPMC] --> D; D --> C[Reta M]
```

Reta M

Particle Size Distribution

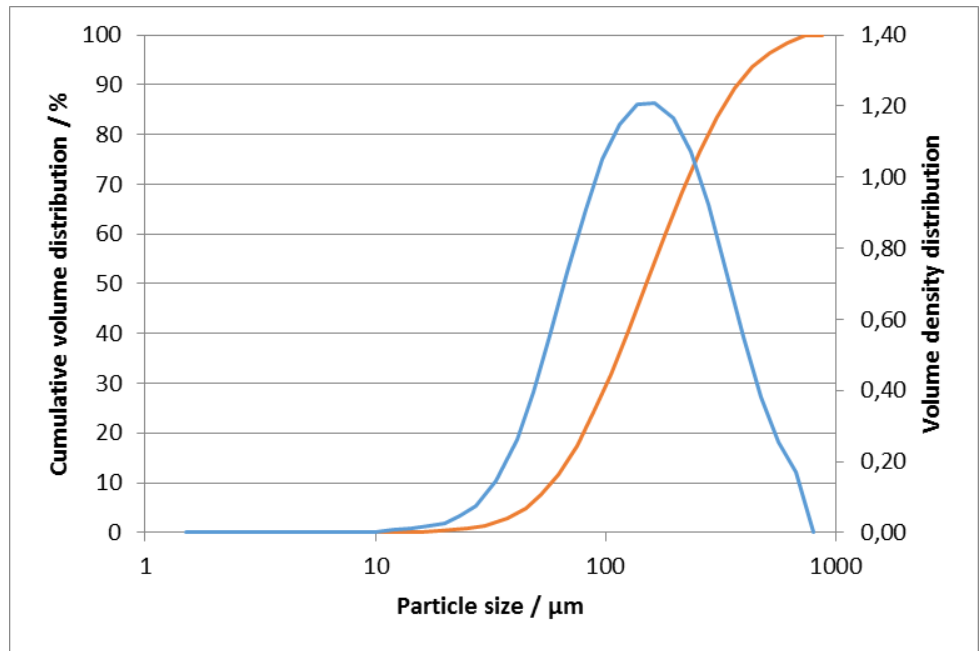
Mechanical sieve shaker

25 g, 10 minutes, amplitude 2 mm

$< 63 \mu\text{m} \leq 30 \%$
 $< 250 \mu\text{m} \geq 80 \%$

Laser diffraction

$X_{10} = 58 \mu\text{m}^*$
 $X_{50} = 148 \mu\text{m}^*$
 $X_{90} = 356 \mu\text{m}^*$



*Figures are typical values and for information purposes, only

(Sympatec Helios and Rodos, measuring range
0.5/4.5 875 μm , dispersion pressure 0.5 bar)

Characterisation



Bulk/Tapped density
400/510 g/l*



Angle of Repose 39 °*



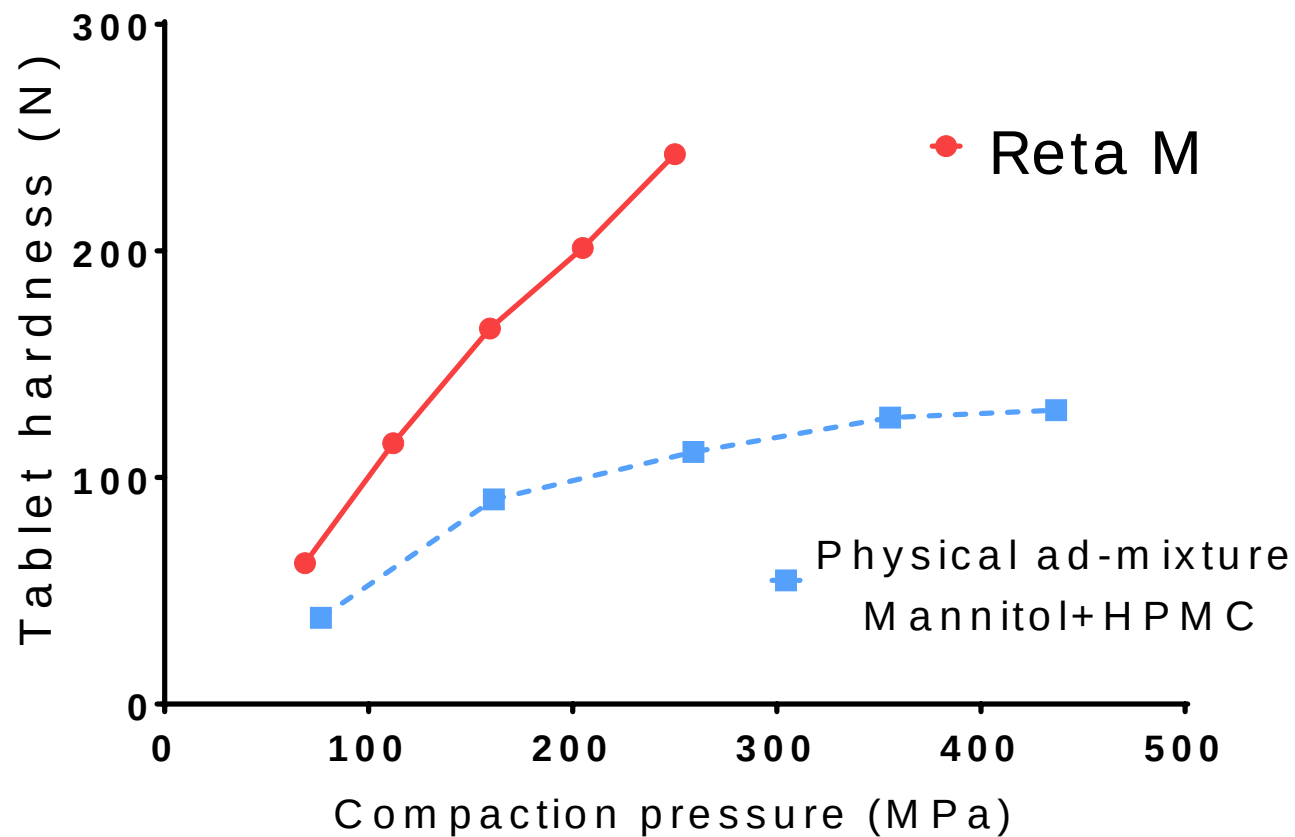
Loss on drying
NMT 3.0 %

$$H = \frac{\rho_T}{\rho_B}$$

Hausner ratio 1.28*

*Figures are typical values and for information purposes, only

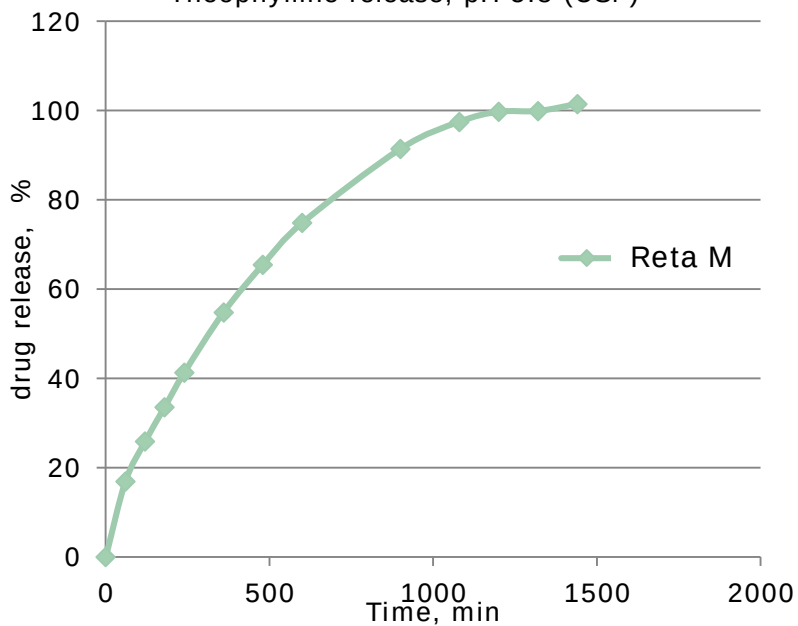
Compactibility



Dissolution Pharma (Active Pharmaceutical Ingredient)

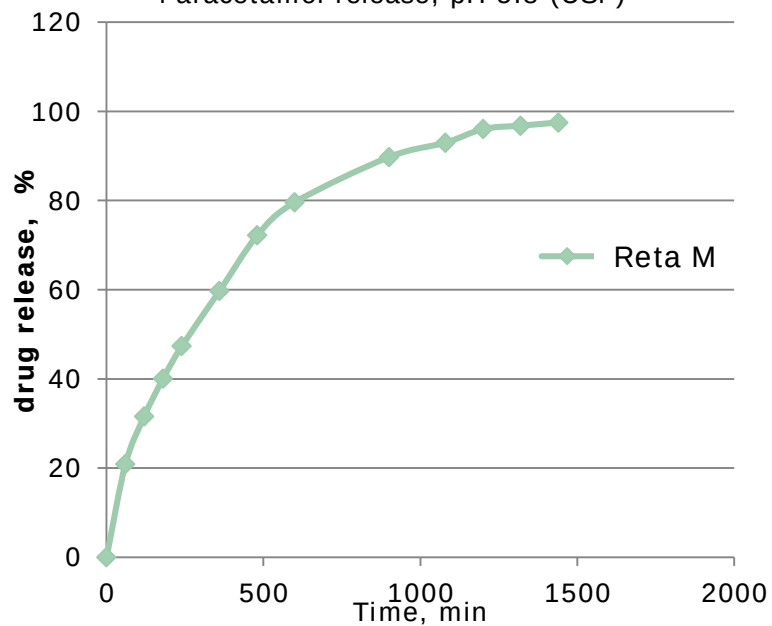
Theophylline

Theophylline release, pH 5.8 (USP)



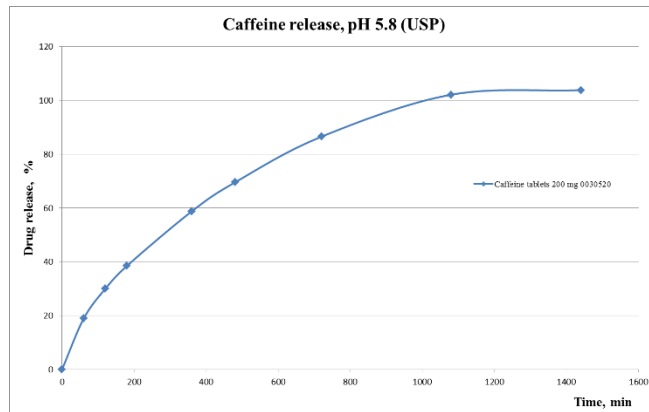
Paracetamol

Paracetamol release, pH 5.8 (USP)

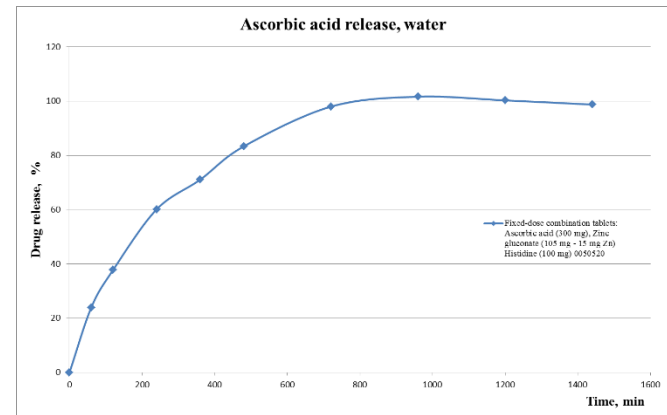


Dissolution Nutraceuticals

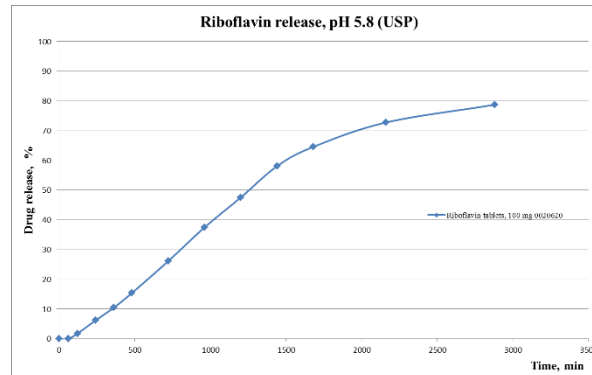
Caffeine



Vitamine C



Vitamine B₂



Summary

- Reta M is MEGGLE's first non-lactose excipient
- Reta M builds on reliable and proven RetaLac technology
- Reta M simply enables direct compression technology for controlled release tablets
- Reta M serves the pharmaceutical and nutraceutical market alike

RETA M[®]

Applications:

- Tableting - Direct Compression, also for multi unit and mini tablets
- Tableting - Roller Compaction
- Preparation of aqueous HPMC-formulations
- Spheronization, Extrusion

Benefits:

- All-in-one excipient for sustained drug release tablets by direct compression
- Prolonged drug release up to 13 hours
- High loading capability up to 50 % drug load
- Lactose-free



Contact us!

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