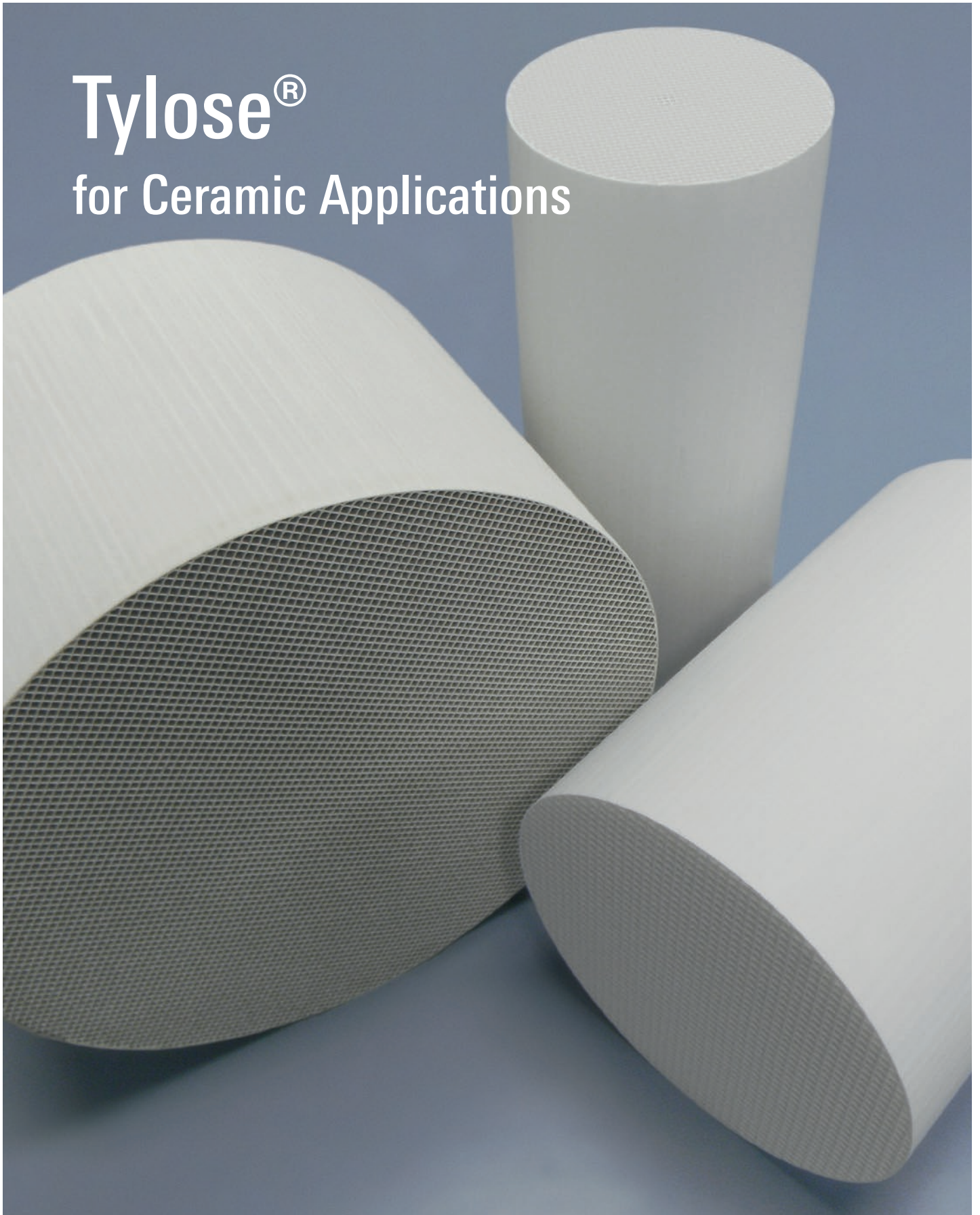


Tylose[®] for Ceramic Applications



Tylose® for Ceramic Applications

Tylose cellulose ethers are used by the ceramic industry in various applications such as ceramic and powder metallurgical extrusion mixes as rheology modification and water retention additives. Furthermore, the high binding power of Tylose plays an important role in spray drying and agglomeration granuling and the related powder pressing processes. Tylose is compatible with most other additives such as dispersants, plasticisers and surfactants. It is easily integratable into existing formulations, and it shows an excellent debinding behaviour.

Tylose in Ceramic Honeycomb Extrusion

Tylose is an indispensable additive for the plastification of ceramic extrusion mixes, especially for the extrusion of technical ceramics, used in the automotive and chemical industry. Typical examples are honeycomb catalyst substrates and particle filters for exhaust gas after-treatment applications. Tylose shows fast hydration and swelling and unfolds its plastification and water retention effects in a highly efficient way. With the combination of high thermal stability, high green strength and low fibre content, Tylose enables high extrusion rates, even with ultra-thin walled substrates.

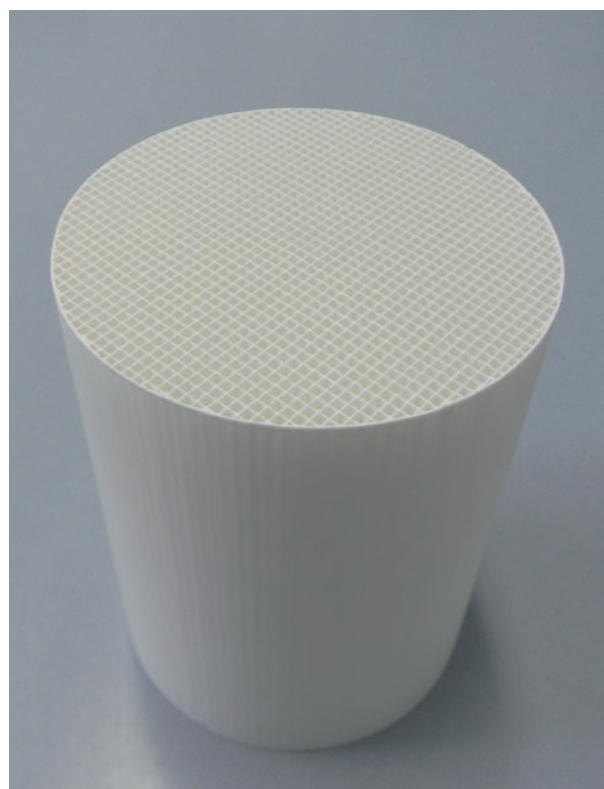
Recommended Grades

Tylose grades	Viscosity (mPas)
CER 406001	350 – 480 (1,9 %) ¹⁾
MHF 15000 P4	11000 – 15000 (1,9 %) ¹⁾
E 407003	24000 – 32000 (2,0 %) ²⁾
H 100000 YP2	3800 – 5000 (1,0 %) ³⁾

¹⁾ Brookfield RV, 20 °C, water 20 °GH (German hardness)

²⁾ Brookfield LV, 20 °C, deionized water

³⁾ Brookfield LV, 25 °C, deionized water



In the drying process, Tylose prevents cracks via its binding effect, additionally supported by its thermal gelation capabilities. For flux sensitive applications, Tylose low sodium grades are recommended.

Tylose® in Powder Metallurgy

In powder metallurgic extrusion applications, special Tylose grades provide an outstanding thickening effect in water and in certain compositions of organic solvents. Tylose plasticises powder metallurgical mixtures with high efficiency and enables shaping of products, even with large diameters.

Recommended Grades

Tylose grades	Viscosity (mPas)
MOBS 4070 P4	3000 – 5600 (2,0 %) ¹⁾
E 407003	24000 – 32000 (2,0 %) ¹⁾

¹⁾ Brookfield LV, 20 °C, deionized water



Tylose in Granuling and Powder Pressing

In powder metallurgic extrusion applications, special Tylose grades provide an outstanding thickening effect in water and in certain compositions of organic solvents. Tylose plasticises powder metallurgical mixtures with high efficiency and enables shaping of products, even with large diameters.

Recommended Grades

Tylose grades	Viscosity (mPas)
H 15 YG4	150 – 250 (5,0 %) ¹⁾
MH 50 G4	150 – 250 (2,85 %) ²⁾

¹⁾ Brookfield LV, 25 °C, deionized water

²⁾ Brookfield RV, 20 °C, water 20 °GH (German hardness)

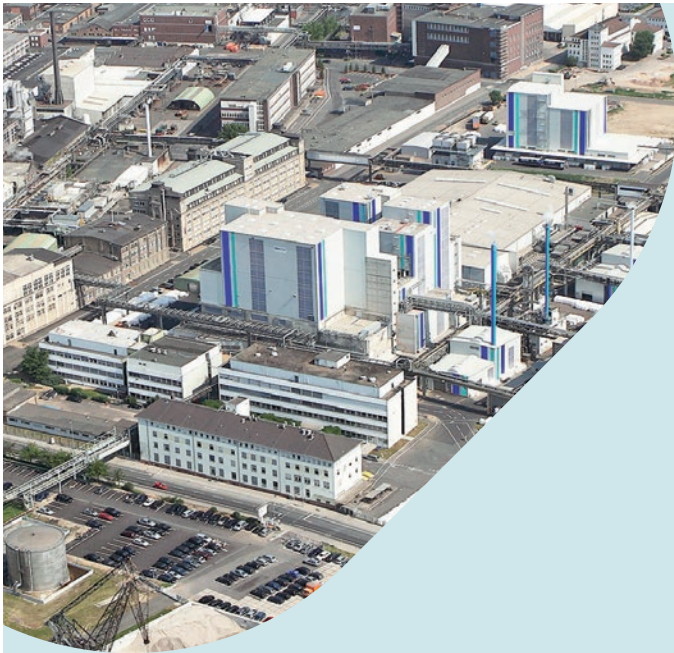
Tylose in engobes and glazes

The rheology modifying effects of Tylose prevent sedimentation of solids as well as supporting good flowability of the glazing slips, ensuring a uniform coating of ceramic bodies. In a dry state, Tylose strengthens the capability of the glaze film to bind to the ceramic surface, making it smooth and stable.

Recommended Grades

Tylose grades	Viscosity (mPas)
H 30000 YP2	1500 – 2500 (1,0 %) ¹⁾
H 100000 YP2	3800 – 5000 (1,0 %) ¹⁾

¹⁾ Brookfield LV, 25 °C, deionized water



About us

SE Tylose GmbH & Co. KG is one of the major manufacturers of cellulose ethers world-wide, supplied under the brand name Tylose®. Tylose is used in a wide variety of products and applications.

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Applications

- ▶ Building Materials
- ▶ Paints
- ▶ **Ceramics**
- ▶ Polymerisation
- ▶ Personal Care
- ▶ Home Care
- ▶ Oilfield
- ▶ Others

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Edition 06/2024