



A 3M Company

Dyneon^ä

TF 2021 PTFE / TF 2025 PTFE

fine powders for unsintered thread sealing tapes, joint sealants and pipe liners

Features and Benefits

- Processable by standard paste extrusion methods
- Both grades can be processed at low to medium reduction ratios
- TF 2021 PTFE is preferred for unsintered thread sealing tapes and expanded joint sealants
- TF 2025 PTFE is recommended for pipe liner applications because of its superior green strength

Typical Properties (Data not for specification purposes)

Powder properties

	TF 2021 PTFE	TF 2025 PTFE	
Bulk density	510 kg/m ³	510 kg/m ³	ISO 12086
Average particle size	500 µm	500 µm	ISO 12086
Extrusion pressure (reduction ratio 400)	30 Mpa 4350 psi	40 Mpa 5800 psi	ISO 12086
Reduction ratio range	20-500:1	20-300:1	Dyneon internal method

Mechanical properties*, measured at 23°C (73°F)

	TF 2021 PTFE	TF 2025 PTFE	
Tensile strength	28 MPa 4060 psi	28 MPa 4060 psi	ISO 12086
Elongation at break	340 %	340 %	ISO 12086
Density	2,15 g/cm ³	2,15 g/cm ³	ISO 12086

*average values, measured according to ISO 12086 on 1.6mm (0.06") sintered sheets.

Dyneon™ TF 2021 PTFE / 2025 PTFE



Recommended processing procedures

Dyneon TF 2021 PTFE and TF 2025 PTFE can be processed by the conventional paste extrusion method. The fine powder is mixed with a suitable lubricant and compacted into a preform, which is then extruded through the die of a ram extruder to produce tubing, pipe, tape or cord. Tapes can also be produced by calendaring a cord still containing lubricant. The lubricant is then evaporated and the tape/cord is stretched or the tube/pipe is sintered.

Packaging

Dyneon TF 2021 PTFE and TF 2025 are supplied in moisture and dust-tight plastic drums.

Capacity per drum: 25 kg (55 lbs.)
Order quantity per pallet: 300 kg (661 lbs.)

Storage

Dyneon TF 2021 PTFE and TF 2025 PTFE can be stored for a relatively long period of time. They should be stored and mixed (addition of lubricant) in a clean, dry place at a temperature of less than 19°C (66°F) to retain free-flowing properties. Before processing, it is advisable to store the material in a sealed container for at least 24 hours in the production area to eliminate the risk of condensation in the powder. This is particularly important when ambient temperature is low, in such cases the material should be conditioned for up to 72 hours in the production area.

Management systems

Dyneon has achieved ISO 9001 registration for its worldwide locations and ISO 14001 registration for its Gendorf facility located in Germany. Dyneon has achieved A2LA accreditation for its US operations located in Aston, PA.

Important Notice: Because conditions of product use are outside Dyneon's control and vary widely, user must evaluate and determine whether a Dyneon product will be suitable for user's intended application before using it. **The following is made in lieu of all express and implied warranties (including warranties of merchantability and fitness for a particular purpose): If a Dyneon product is proved to be defective, Dyneon's only obligation, and user's only remedy, will be, at Dyneon's option, to replace the quantity of product shown to be defective when user received it or to refund user's purchase price. In no event will Dyneon be liable for any direct, indirect, special, incidental, or consequential loss or damage, regardless of legal theory, such as breach of warranty or contract, negligence, or strict liability.**

Technical Information and Test Data: Technical information, test data, and advice provided by Dyneon personnel are based on information and tests we believe are reliable and are intended for persons with knowledge and technical skills sufficient to analyze test types and conditions, and to handle and use raw polymers and related compounding ingredients. No license under any Dyneon or third party intellectual rights is granted or implied by virtue of this information.

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