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Technical data sheet
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PTFE III. (Bronze 40%)

Properties	*Value*	*Unit*	*DIN Standard*
Hardness	*≥58*	*Shore D*	DIN ISO 7619-1
Density	*2,98-3,16*	*g/cm^3*	ASTM D792
Tensile Strength	*≥20*	*N/mm^2*	ISO 527
Elongation at Break	*≥220*	*%*	ISO 527
Compressive Strength at 1% Deformation	*8*	*N/mm^2*	ASTM D695
Deformation under Load at Room Temperature After 24 Hours at 13,7 N/mm2	*≤8*	*%*	ASTM D621
Permanent Deformation Under Load After 24 Hours of Rest at Room Temperature	*≤5*	*%*	ASTM D621
Dynamic Coefficient of Friction	*0,15-0,25*	*/*	ASTM D1894 ASTM D3702
Wear Factor K	*0,010-0,030*	*/*	ASTM D3702
Service Temperature (Min-Max)	*-200/+260*	*°C*	*/*
Thermal Expansion Coefficient (Linear) 25 – 100°C	*8-11*	*10^{-5}(mm/mm)/°C*	Similar to ASTM D696

This is a bronze-filled PTFE compound (about **40% bronze**, often with ~2% carbon) formulated to deliver higher compressive strength and greater thermal conductivity than virgin PTFE.
The bronze filler produces significantly improved wear resistance and hardness, so it is chosen for heavily loaded sliding parts and anti-extrusion rings.
Common uses are **unlubricated bearings, backup rings, seals and compressor components**—applications where self-lubrication, heat dissipation and avoiding metal-to-metal contact are important.
Compared with unfilled PTFE this compound grade has reduced electrical insulation and somewhat lower chemical resistance, and a much higher density (around **3.05–3.12 g/cm³**).
It retains PTFE's wide service-temperature window (≈ **–200 °C to +260 °C**) and offers lower friction/wear in many sliding situations.