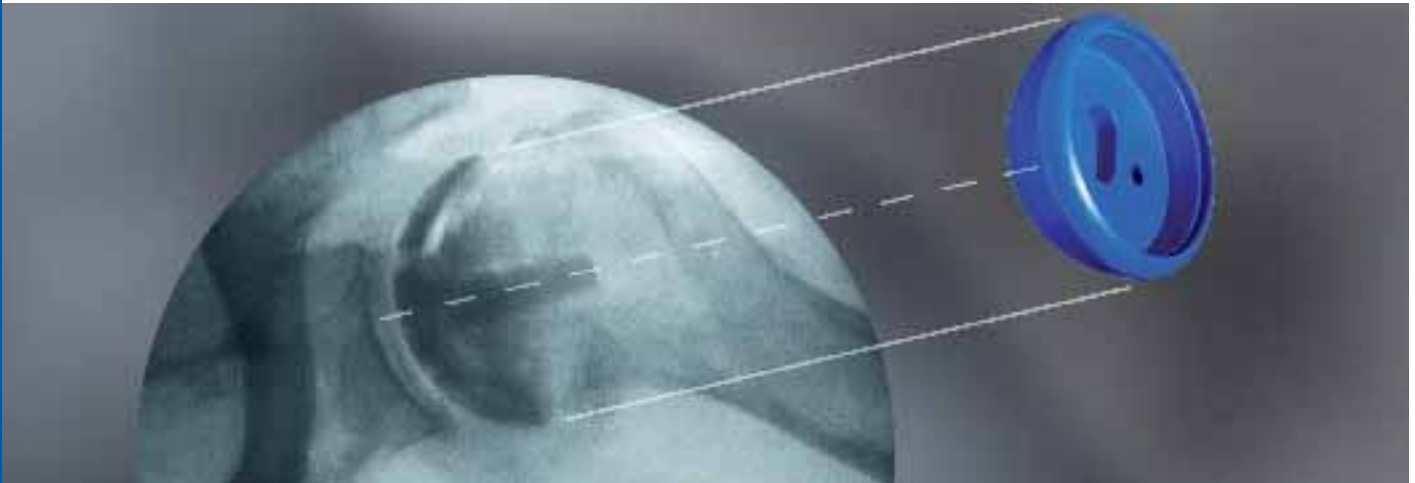


TECASON P MT XRO
Clear visibility on fluoroscopy and x-ray



ENSINGER launches its new line of x-ray opaque XRO series, thermoplastic shapes with **TECASON™ P MT XRO**. A radio opacifier is added to the standard line of coloured PPSU extruded rods for orthopaedic sizing trials and other instrument devices allowing for clear visibility of the component on fluoroscopy and x-ray. This accommodates some of the new challenges created by minimally invasive and image guided surgery.

TECASON™ P MT XRO has been tested to the requirements of ISO 10993 for external communication devices intended for less than 24 hour contact with tissue, bone and dentine. These tests include: Maximization /Sensitization Testing, Cytotoxicity, Intracutaneous Test, Acute Systemic Toxicity Test and the Hemolysis Test.

At regular intervals the semi-finished products are tested according to ISO 10993-5.

Preferred fields

Medical technology, food technology

Applications

Surgical instruments, instrument handles, implant trials, sterilisation trays

Properties

- | X-ray opaque
- | Biocompatibility and FDA conformity of raw material and colour additives
- | Resistant to cleaning agents, disinfectants and various solvents
- | Resistant to repeated steam sterilisation cycles
- | High resistance to gamma radiation
- | Good hydrolysis resistance
- | Excellent dimensional stability, high hardness and rigidity
- | High thermal and mechanical capacity
- | High impact strength and notched impact strength
- | Low water absorption
- | Very good electrical insulation

TECASON P MT XRO

Technical Properties		TECASON P MT XRO
DIN abbreviation		PPSU
Density (ASTM D 792, DIN 53 479)	ρ g/cm ³	1,30
Tensile strength at yield (ASTM D 638)	σ_s MPa	70
Elongation at break (ASTM D 638)	ϵ_R %	> 50
Modulus of elasticity after tensile test (ASTM D 638)	E_z MPa	2000
Modulus of elasticity after flexural test (ASTM D 790)	E_b MPa	2100
Hardness (Rockwell: ASTM D 785)	H_k MPa	122,5
Glass transition temperature (DIN 53 765)	T_g °C	220
Heat distortion temperature (DIN 53 461 acc. ISO R 75 method A, ASTM 648)	HDT/A °C	207
Heat distortion temperature (DIN 53 461 acc. ISO R 75 method B, ASTM 648)	HDT/B °C	214
Service temperature short term	°C	190
Service temperature long term	°C	170
Coefficient of linear thermal expansion (23 °C, ASTM D 696, DIN 53 752, ASTM E 831)	α 10 ⁻⁵ 1/K	5,6
Dielectric constant (ASTM D 150)	ϵ_R -	3,45
Dielectric strength (ASTM D 149)	E_d kV/mm	15
Water absorption at saturation (DIN EN ISO 62)	W_s %	1,1
Flammability according to UL-Standard 94		V0

Please find information concerning the exclusion of liability and Terms and Conditions of Delivery in our Semi-finished products catalogue or at www.ensinger-online.com.

Available on request

Rods



	Tolerance (mm)	TECASON P MT XRO							
		black	green	red	yellow	blue	rust	brown	bone
DIN-Abbreviation		PPSU	PPSU	PPSU	PPSU	PPSU	PPSU	PPSU	PPSU
Density (g/cm ³)		1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30
Diameter Ø (mm / ")		kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m
25,4 / 1"	+ 0,0 +0,13	0,675							
38,1 / 1½"	+ 0,0 +0,13	1,52	1,52		1,52	1,52		1,52	1,52
50,8 / 2"	+ 0,0 +0,13		2,69	2,69		2,69			
63,5 / 2½"	+ 0,0 +0,76						4,25		