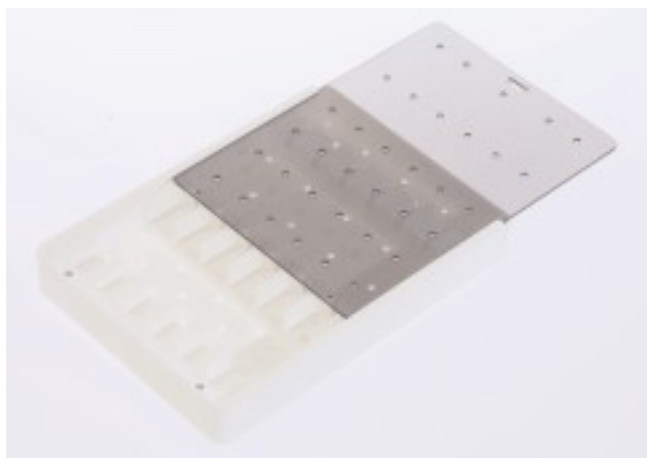
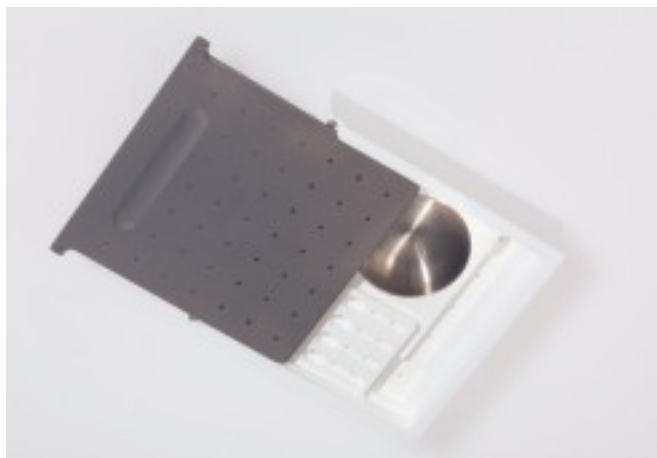


**TECAPRO MT**

**Dimensionally stable and light weight.  
 Resistant to chemicals with stable color.**



Surgical trays made of TECAPRO MT.

Sterilization containers, eg, for surgical instruments have to provide high dimensional stability, especially throughout repeated sterilization cycles.

Due to a special sterilization process, TECAPRO MT shows a better resistance to higher temperatures than standard polypropylene. Compared to other materials, eg, stainless steel and PTFE, TECAPRO MT possesses a much lower density which results in a reduced weight of the component parts. Standard color is white, however, other colors can be produced according to customer preferences.

**Preferred fields**

Medical technology and food processing

**Applications**

Surgical trays, surgical related equipment, implant trials

**Properties**

Good resistance to cleaning agents and disinfectants

Can be repeatedly sterilized with hot steam

High dimensional stability

Good machinability

Laser marking possible

FDA conformity of raw material and color pigments

TECAPRO MT is also available as TECAPRO SAN with an antimicrobial additive to provide additional safety.

**Very stable after exposure to chemicals**

Exposure in two different chemical systems for cleaning and hot steam autoclaving:

- | Ecolab chemistry
- | Boxer chemistry
- | 300 cycles of exposure

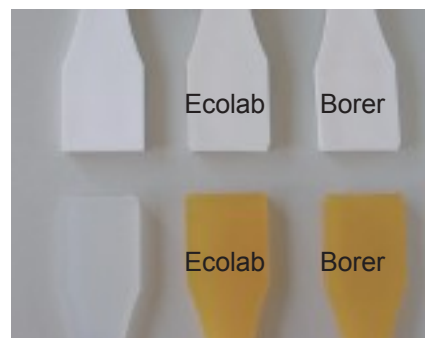
The comparison between TECAPRO MT and TECAFINE PP shows good resistance to chemical agents. Minimal property variation of TECAPRO MT in the Ecolab and Borer tests.

- | no optical changes
- | no serious changes in mechanical properties

For further information on mechanical properties see reverse.

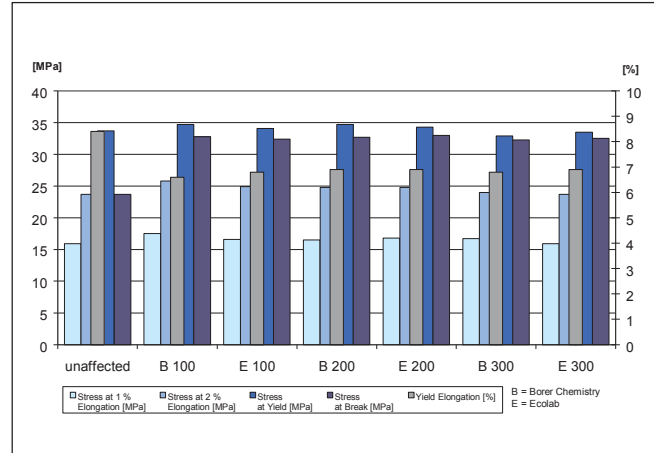
TECAPRO MT  
white

TECAFINE PP  
neutral



# TECAPRO MT

Standard values	Unit	TECAPRO MT
DIN-abbreviation		PP
Density (ASTM D 792, DIN 53 479)	$\rho$ g/cm <sup>3</sup>	0,92
Tensile strength at yield (ASTM D 638, DIN EN ISO 527)	$\sigma_S$ MPa	35
Elongation at yield (ASTM D 638, DIN EN ISO 527, ASTM D 1708 (a))	$\epsilon_S$ %	12
Modulus of elasticity, after tensile test	$E_Z$	
Modulus of elasticity, after flexural test (ASTM D 790, DIN EN ISO 178)	$E_B$ MPa	1470
Hardness Ball Indentation: ISO 2039/1, Shore D: ASTM D 2240, DIN 53 505 (d), Rockwell: ASTM D 785 , ISO 2039/2 (r), others: ASTM D 785 (a), DIN 43 456 (s))	$H_K$ MPa	100(r)
Impact resistance (DIN EN ISO 179, Izod: ASTM D 256, DIN EN ISO 180 (ii), Charpy: DIN EN ISO 179 21, notch Impact strength: DIN 53 456 (ki))	$a_n$ kJ/m <sup>2</sup>	0,69 (ii)
Melting point (DIN 53 736)	$T_m$ °C	163
Heat distortion temperature (DIN 53 461) acc. to ISO-R 75 method A	HDT/A °C	86
Maximum service temperature short term long term	°C °C	140 100
Coefficient of linear thermal expansion (23 °C, ASTM D 696, DIN 53 752, ASTM E 831)	$\alpha$ 10 <sup>-5</sup> 1/K	8,3
Volume resistance (ASTM D 257, EC 93, DIN IEC 60093)	$R_D$ $\Omega \cdot \text{cm}$	>10 <sup>14</sup>
Dielectric strength (ASTM D 149, IEC-243, VDE 0303 part 2)	$E_d$ kV/mm	>40
Moisture absorption at equilibrium 23 °C / 50% rel. humidity (DIN EN ISO 62)	$W(H_2O)$ %	<0,1
Flammability acc. to UL-Standard 94		HB



TECAPRO MT after 300 cycles of exposure for medical devices in alkaline cleaning system and hot steam sterilization at 134 °C.

## Stocklist

### Plates



	Tolerance mm	TECAPRO MT white	TECAPRO MT black
DIN-Abbreviation		PP	PP
Density (g/cm <sup>3</sup> )		0,92	0,92
Size mm		kg/m	kg/m
12,7 x 610 ( 1/2"x 24")		7,43	7,43
25,4 x 610 (1"x 24")		14,63	14,63
38,1 x 610 (1 1/2"x 24")	+0,0 -0,80	21,83	21,83
50,8 x 610 (2"x 24")		29,03	29,03
63,5 x 610 (2 1/2"x 24")		36,23	36,23

The specified kg/m weights are purely arithmetic figures. Weight on delivery will deviate from the figures given above. Stock lengths 2440 mm, other delivery lengths possible. All figures given without obligation.



= Stock item

= Non-stock item – special production

Please find further information on general delivery terms and conditions of the company in our brochure Semi-finished Plastic Products or on our website: [www.ensinger-online.com](http://www.ensinger-online.com).

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