BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

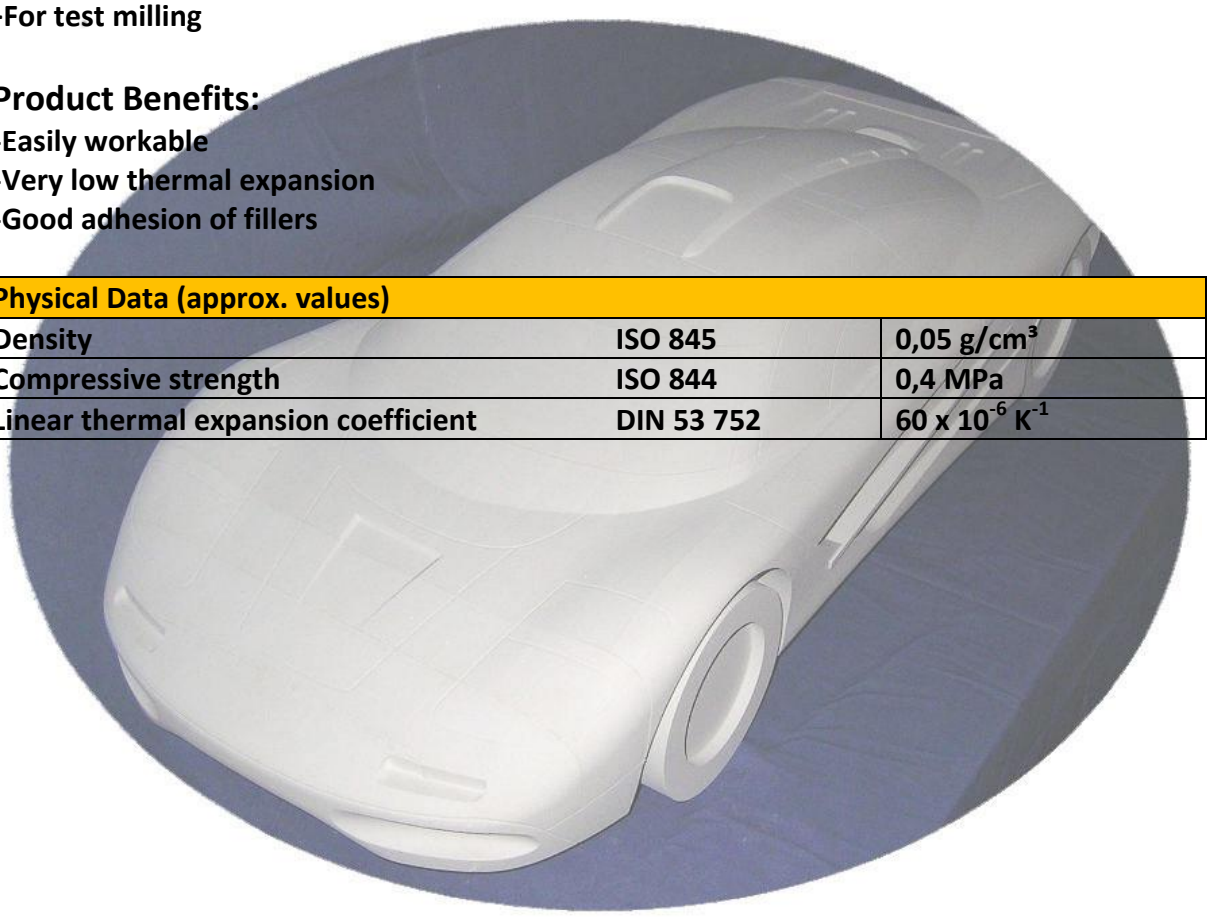
Block M50

Basis:

-Hard polyurethane foam, grey

Areas of Application:

-Manufacture of substructure for design, styling and clay models,
-Manufacture of styling models and design studies
-For test milling



Product Benefits:

-Easily workable
-Very low thermal expansion
-Good adhesion of fillers

Physical Data (approx. values)		
Density	ISO 845	0,05 g/cm^3
Compressive strength	ISO 844	0,4 MPa
Linear thermal expansion coefficient	DIN 53 752	60 x 10^{-6} K^{-1}

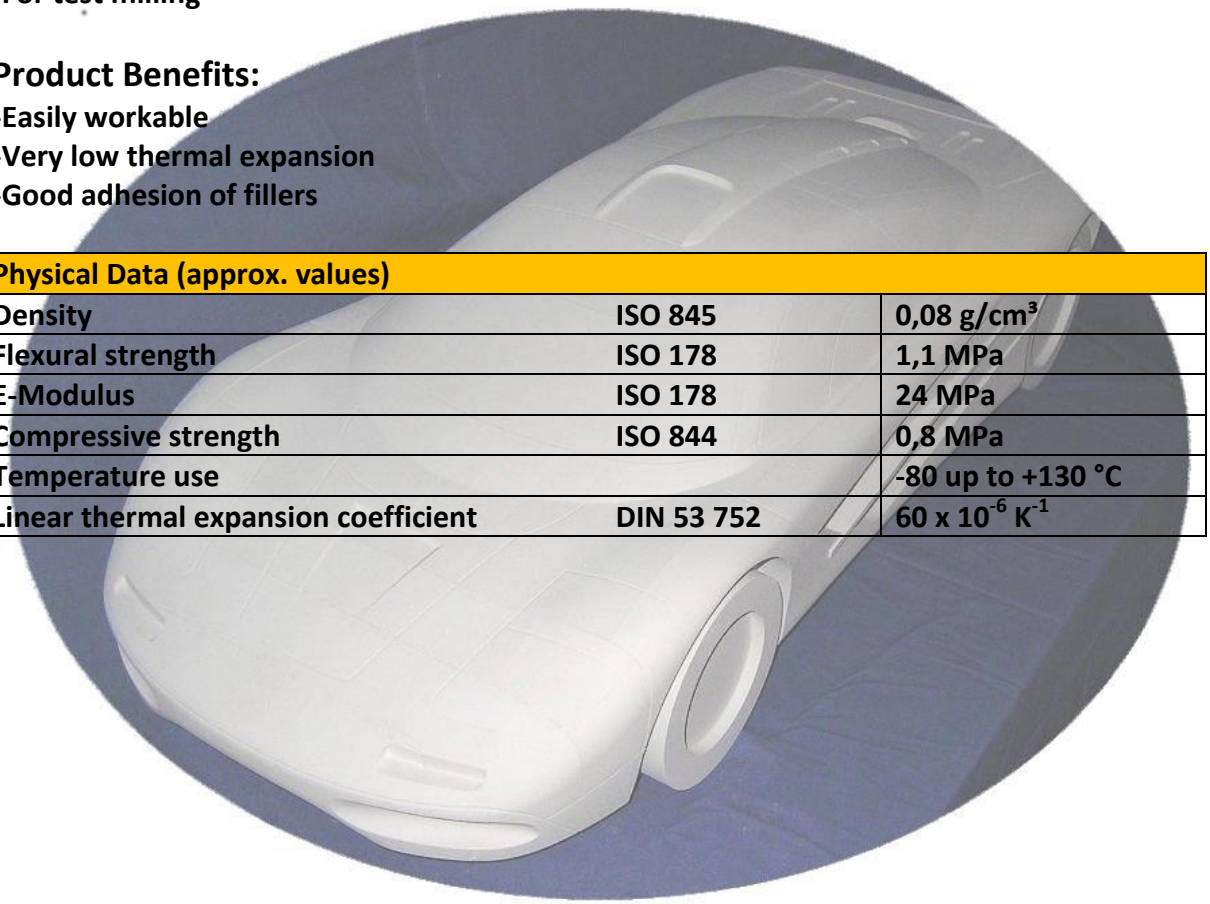
BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

Block M80

Basis:
- Hard polyurethane foam, beige

Areas of Application:
-Manufacture of substructure for design, styling and clay models
-Manufacture of styling models and design studies
-For test milling



Product Benefits:
-Easily workable
-Very low thermal expansion
-Good adhesion of fillers

Physical Data (approx. values)		
Density	ISO 845	0,08 g/cm³
Flexural strength	ISO 178	1,1 MPa
E-Modulus	ISO 178	24 MPa
Compressive strength	ISO 844	0,8 MPa
Temperature use		-80 up to +130 °C
Linear thermal expansion coefficient	DIN 53 752	60 x 10^{-6} K^{-1}

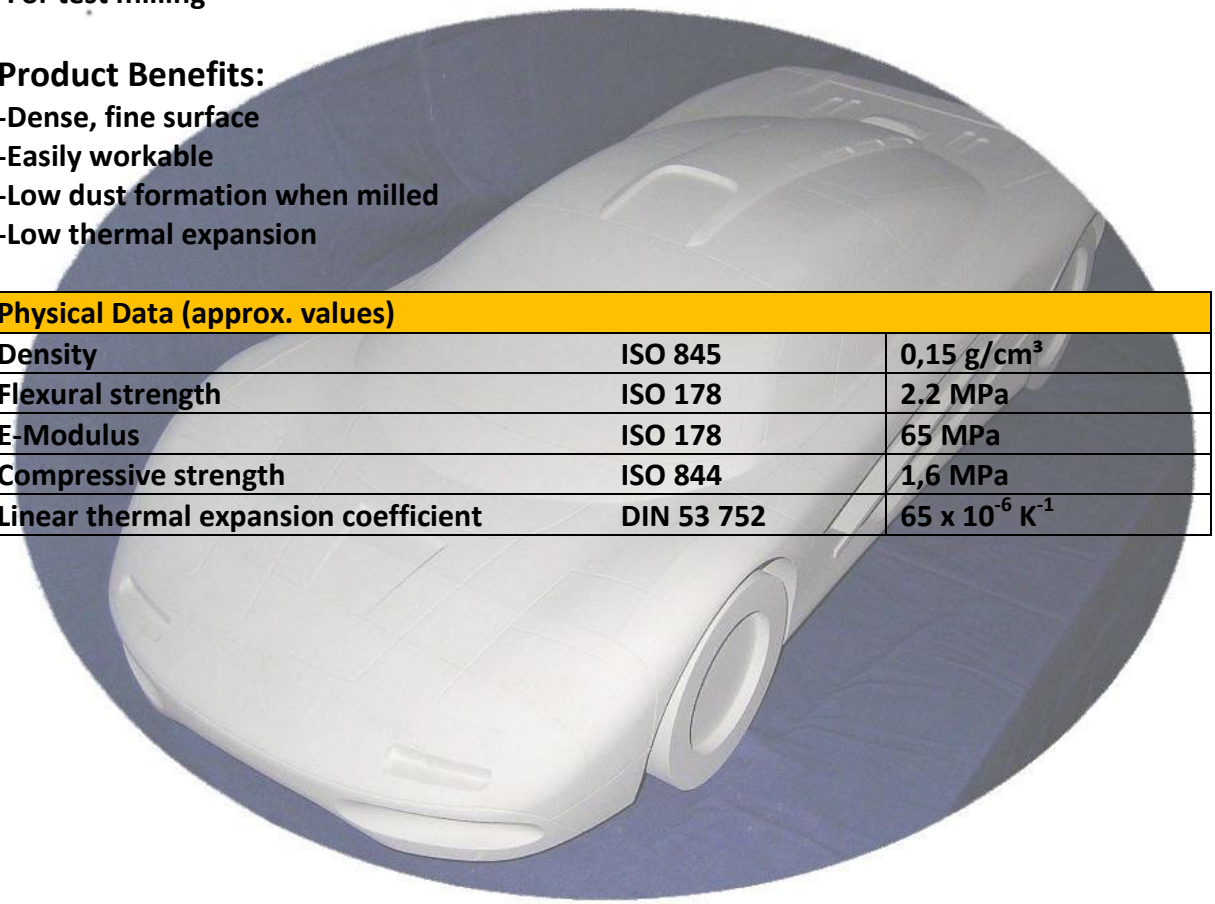
BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

Block M150

Basis:
-Hard polyurethane foam, light green

Areas of Application:
-Manufacture of substructure for design, styling and clay models
-Manufacture of styling models and design studies
-For test milling



Product Benefits:
-Dense, fine surface
-Easily workable
-Low dust formation when milled
-Low thermal expansion

Physical Data (approx. values)		
Density	ISO 845	0,15 g/cm³
Flexural strength	ISO 178	2.2 MPa
E-Modulus	ISO 178	65 MPa
Compressive strength	ISO 844	1,6 MPa
Linear thermal expansion coefficient	DIN 53 752	65 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

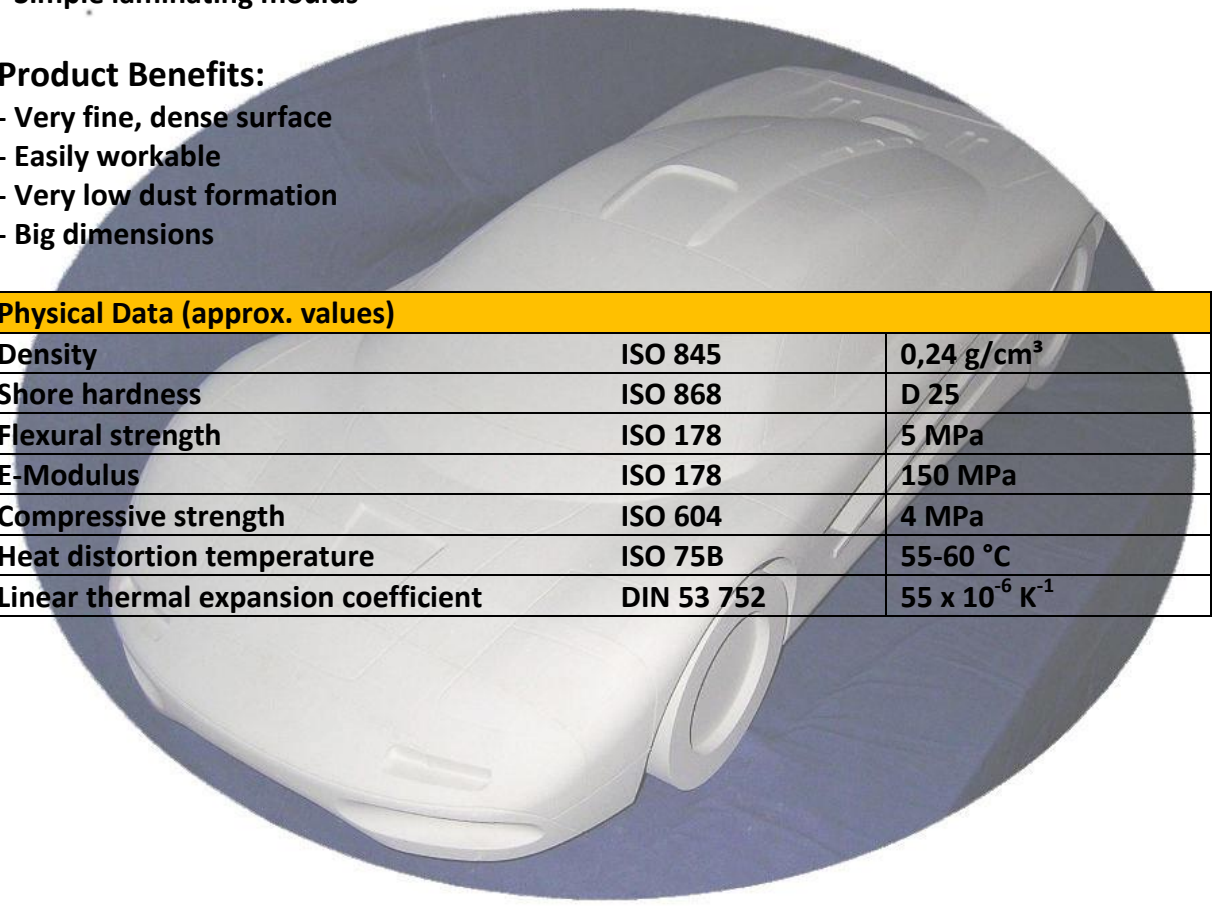
Block M330

Basis:

- Hard polyurethane foam, siena

Areas of Application:

- Manufacture of design and styling models
- Manufacture of substructure for cubing and data control models
- Simple laminating moulds



Product Benefits:

- Very fine, dense surface
- Easily workable
- Very low dust formation
- Big dimensions

Physical Data (approx. values)		
Density	ISO 845	0,24 g/cm³
Shore hardness	ISO 868	D 25
Flexural strength	ISO 178	5 MPa
E-Modulus	ISO 178	150 MPa
Compressive strength	ISO 604	4 MPa
Heat distortion temperature	ISO 75B	55-60 °C
Linear thermal expansion coefficient	DIN 53 752	55 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

Block M450

Basis:

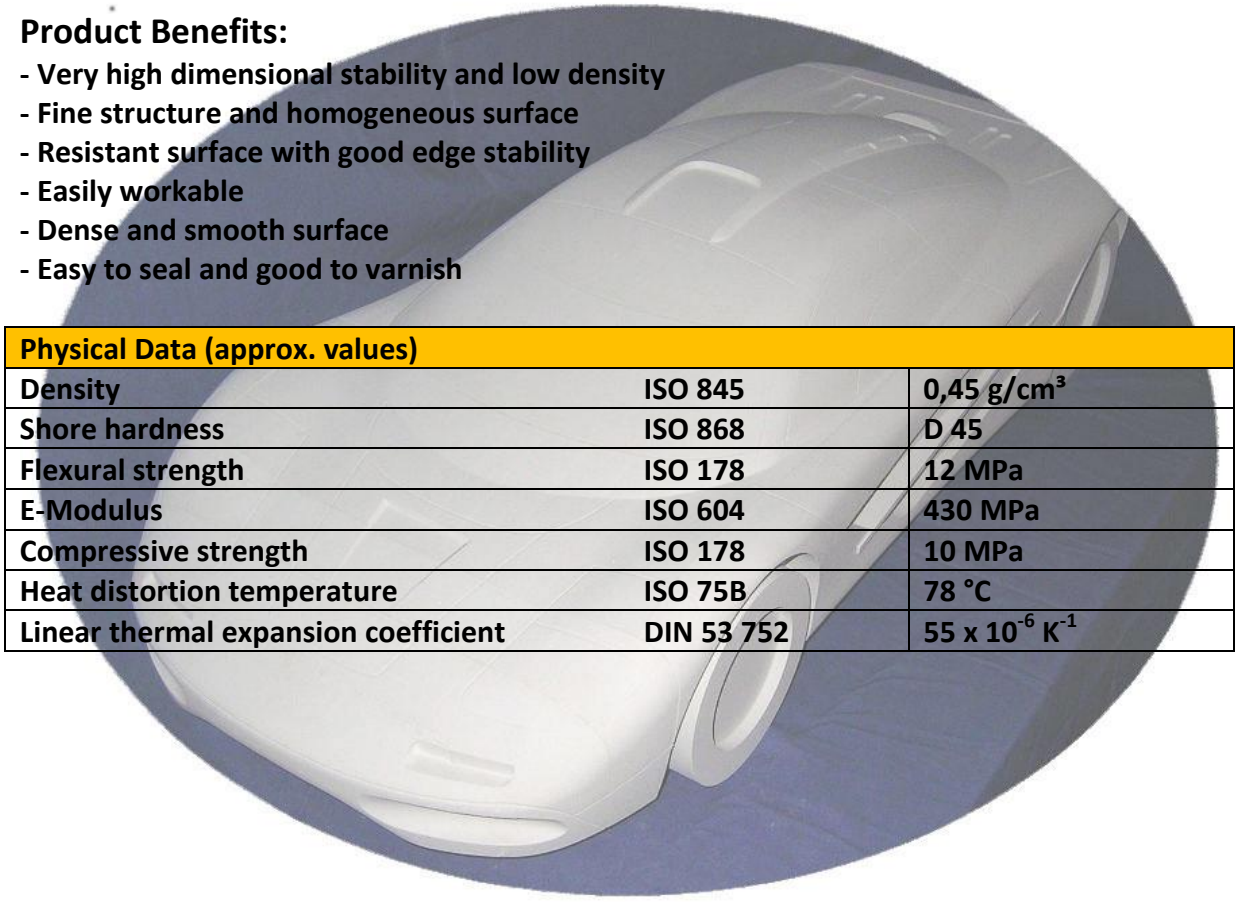
- Polyurethane, orange

Areas of Application:

- Manufacture of design and styling models
- Manufacture of substructure for cubing and DCM

Product Benefits:

- Very high dimensional stability and low density
- Fine structure and homogeneous surface
- Resistant surface with good edge stability
- Easily workable
- Dense and smooth surface
- Easy to seal and good to varnish



Physical Data (approx. values)		
Density	ISO 845	0,45 g/cm³
Shore hardness	ISO 868	D 45
Flexural strength	ISO 178	12 MPa
E-Modulus	ISO 604	430 MPa
Compressive strength	ISO 178	10 MPa
Heat distortion temperature	ISO 75B	78 °C
Linear thermal expansion coefficient	DIN 53 752	55 x 10^{-6} K^{-1}

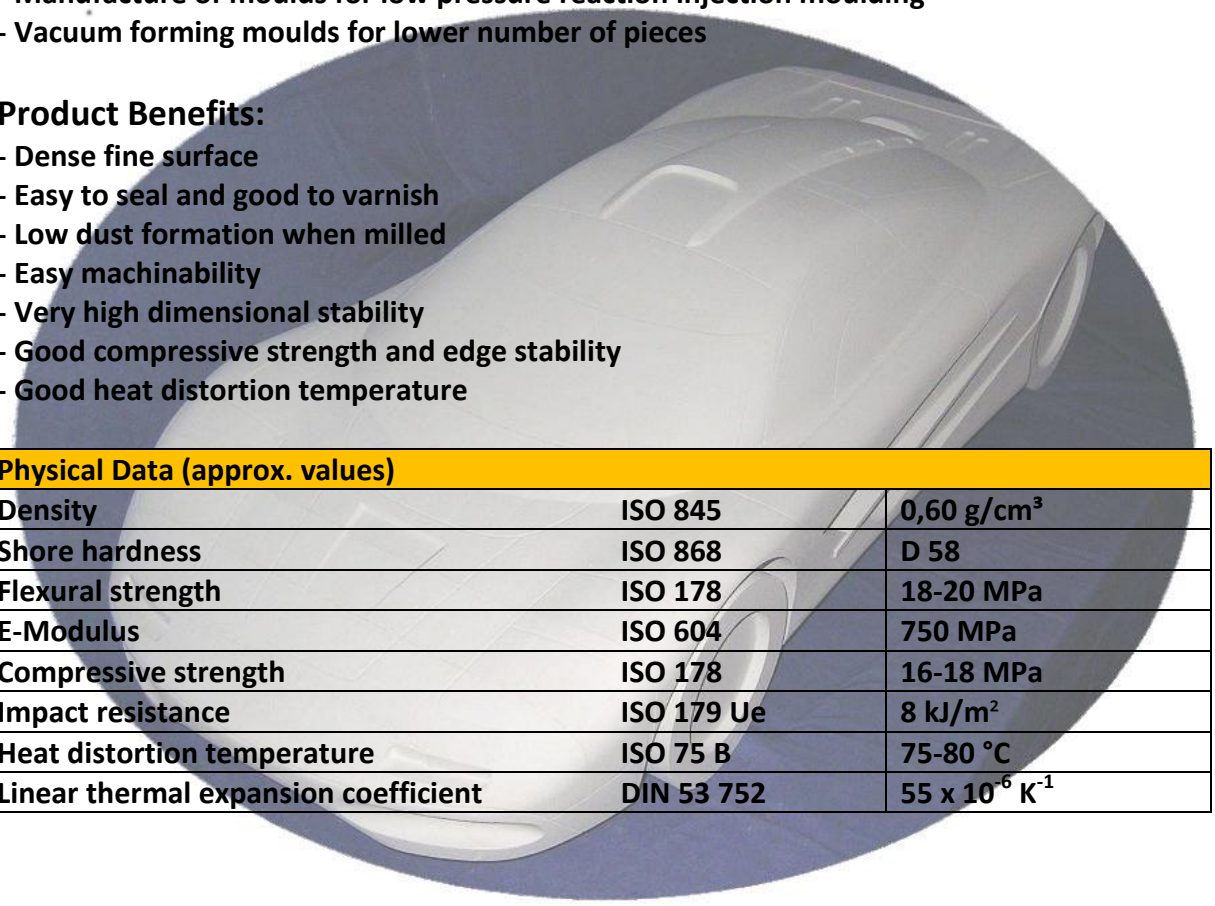
BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

Block M600

Basis:
- Polyurethane, light brown

Areas of Application:
- Data control models and cubings
- Master models in tool and mould construction
- Manufacture of moulds for low pressure reaction injection moulding
- Vacuum forming moulds for lower number of pieces



Product Benefits:
- Dense fine surface
- Easy to seal and good to varnish
- Low dust formation when milled
- Easy machinability
- Very high dimensional stability
- Good compressive strength and edge stability
- Good heat distortion temperature

Physical Data (approx. values)		
Density	ISO 845	0,60 g/cm³
Shore hardness	ISO 868	D 58
Flexural strength	ISO 178	18-20 MPa
E-Modulus	ISO 604	750 MPa
Compressive strength	ISO 178	16-18 MPa
Impact resistance	ISO 179 Ue	8 kJ/m²
Heat distortion temperature	ISO 75 B	75-80 °C
Linear thermal expansion coefficient	DIN 53 752	55 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

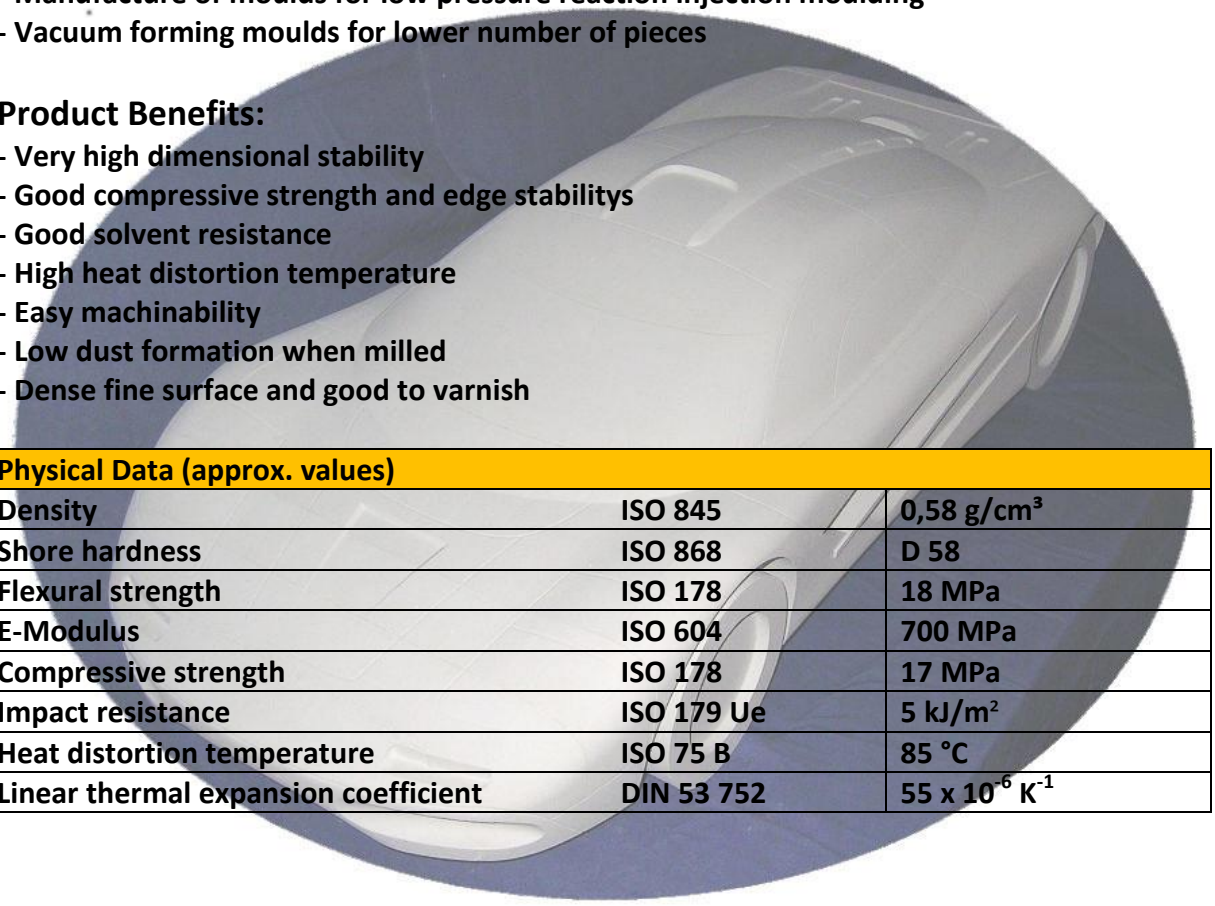
Block M650

Basis:

- Polyurethane, reddish brown

Areas of Application:

- Data control models and cubings
- Master models in tool and mould construction
- Manufacture of moulds for low pressure reaction injection moulding
- Vacuum forming moulds for lower number of pieces



Product Benefits:

- Very high dimensional stability
- Good compressive strength and edge stabilitys
- Good solvent resistance
- High heat distortion temperature
- Easy machinability
- Low dust formation when milled
- Dense fine surface and good to varnish

Physical Data (approx. values)		
Density	ISO 845	0,58 g/cm³
Shore hardness	ISO 868	D 58
Flexural strength	ISO 178	18 MPa
E-Modulus	ISO 604	700 MPa
Compressive strength	ISO 178	17 MPa
Impact resistance	ISO 179 Ue	5 kJ/m²
Heat distortion temperature	ISO 75 B	85 °C
Linear thermal expansion coefficient	DIN 53 752	55 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

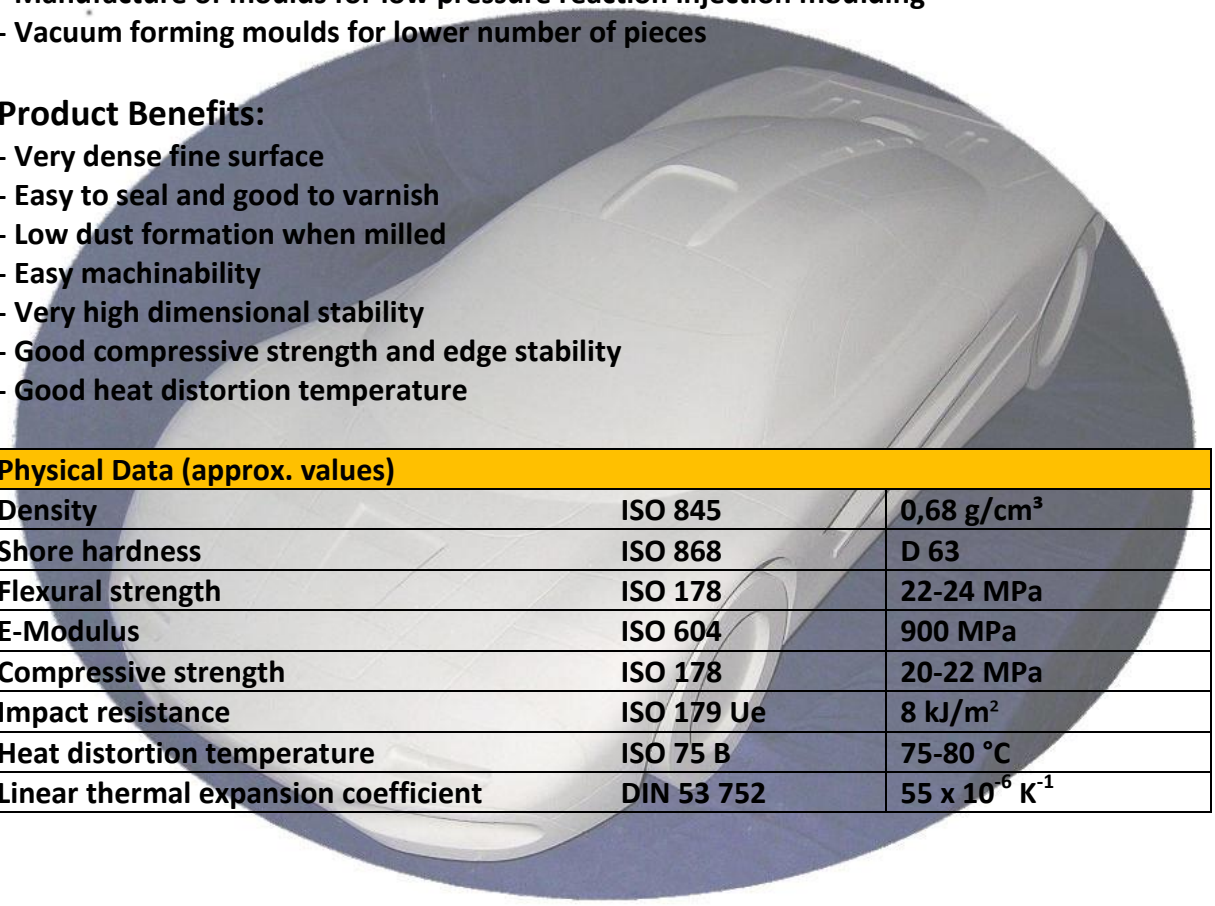
Block M680

Basis:

- Polyurethane, light brown

Areas of Application:

- Data control models and cubing
- Master models in tool and mould construction
- Manufacture of moulds for low pressure reaction injection moulding
- Vacuum forming moulds for lower number of pieces



Product Benefits:

- Very dense fine surface
- Easy to seal and good to varnish
- Low dust formation when milled
- Easy machinability
- Very high dimensional stability
- Good compressive strength and edge stability
- Good heat distortion temperature

Physical Data (approx. values)		
Density	ISO 845	0,68 g/cm³
Shore hardness	ISO 868	D 63
Flexural strength	ISO 178	22-24 MPa
E-Modulus	ISO 604	900 MPa
Compressive strength	ISO 178	20-22 MPa
Impact resistance	ISO 179 Ue	8 kJ/m²
Heat distortion temperature	ISO 75 B	75-80 °C
Linear thermal expansion coefficient	DIN 53 752	55 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

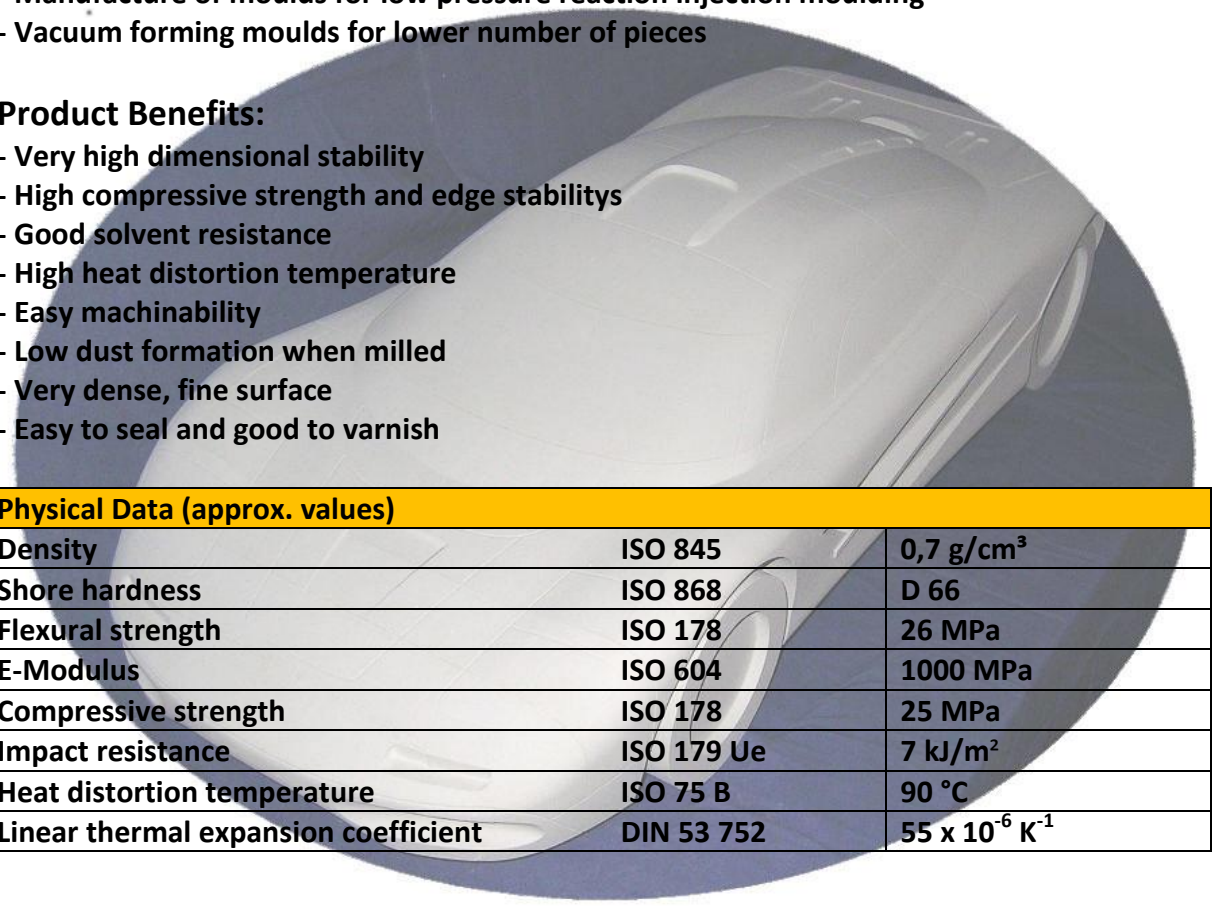
Block M700

Basis:

- Polyurethane, light brown

Areas of Application:

- Manufacture of data control models and cubings
- Manufacture of master models
- Manufacture of moulds for low pressure reaction injection moulding
- Vacuum forming moulds for lower number of pieces



Product Benefits:

- Very high dimensional stability
- High compressive strength and edge stabilitys
- Good solvent resistance
- High heat distortion temperature
- Easy machinability
- Low dust formation when milled
- Very dense, fine surface
- Easy to seal and good to varnish

Physical Data (approx. values)		
Density	ISO 845	0,7 g/cm³
Shore hardness	ISO 868	D 66
Flexural strength	ISO 178	26 MPa
E-Modulus	ISO 604	1000 MPa
Compressive strength	ISO 178	25 MPa
Impact resistance	ISO 179 Ue	7 kJ/m²
Heat distortion temperature	ISO 75 B	90 °C
Linear thermal expansion coefficient	DIN 53 752	55 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

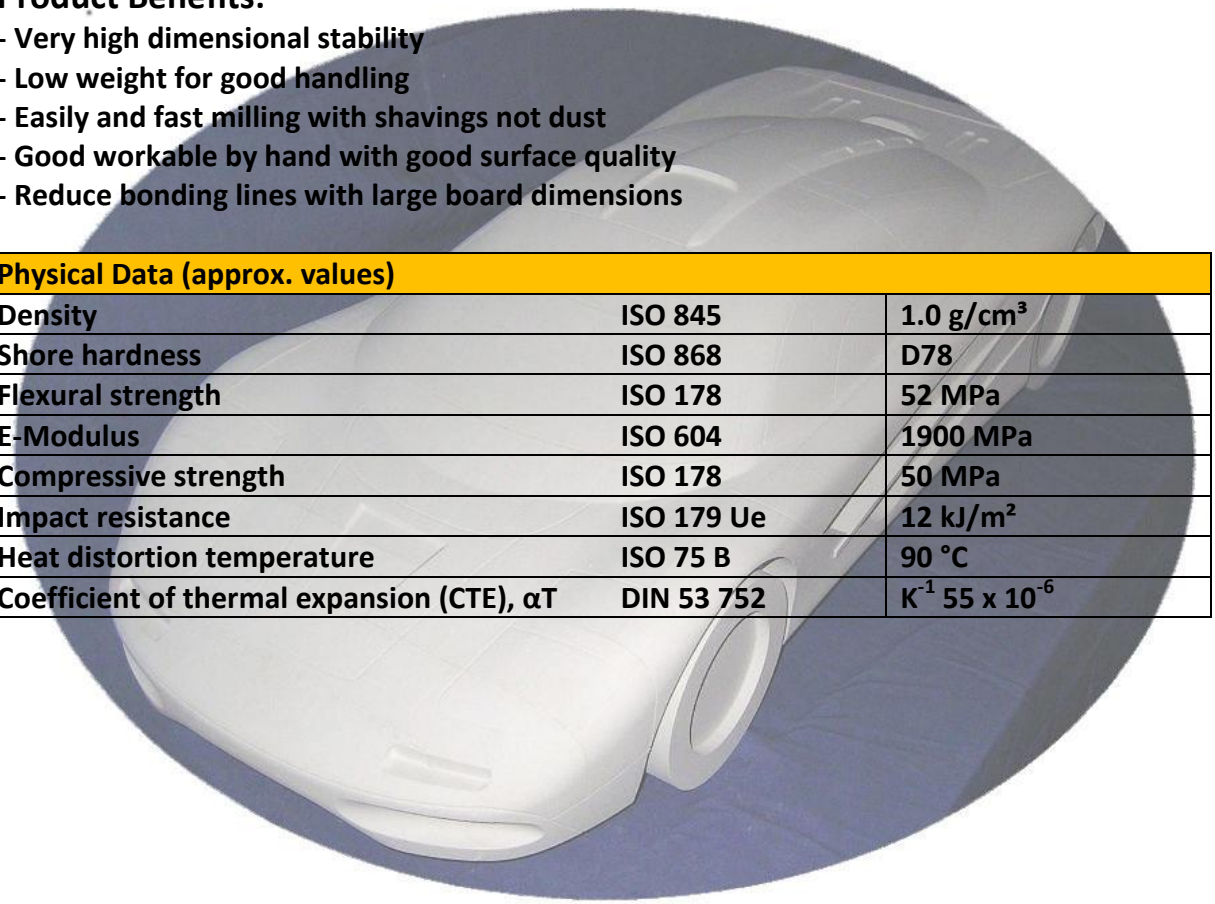
Materialdata Blockmaterial

Block 930

Basis:
- Polyurethane, mint green

Areas of Application:
- Manufacture of foundry models and core boxes for test, trial and first prototypes

Product Benefits:
- Very high dimensional stability
- Low weight for good handling
- Easily and fast milling with shavings not dust
- Good workable by hand with good surface quality
- Reduce bonding lines with large board dimensions



Physical Data (approx. values)		
Density	ISO 845	1.0 g/cm³
Shore hardness	ISO 868	D78
Flexural strength	ISO 178	52 MPa
E-Modulus	ISO 604	1900 MPa
Compressive strength	ISO 178	50 MPa
Impact resistance	ISO 179 Ue	12 kJ/m²
Heat distortion temperature	ISO 75 B	90 °C
Coefficient of thermal expansion (CTE), αT	DIN 53 752	K^{-1} 55 x 10^{-6}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

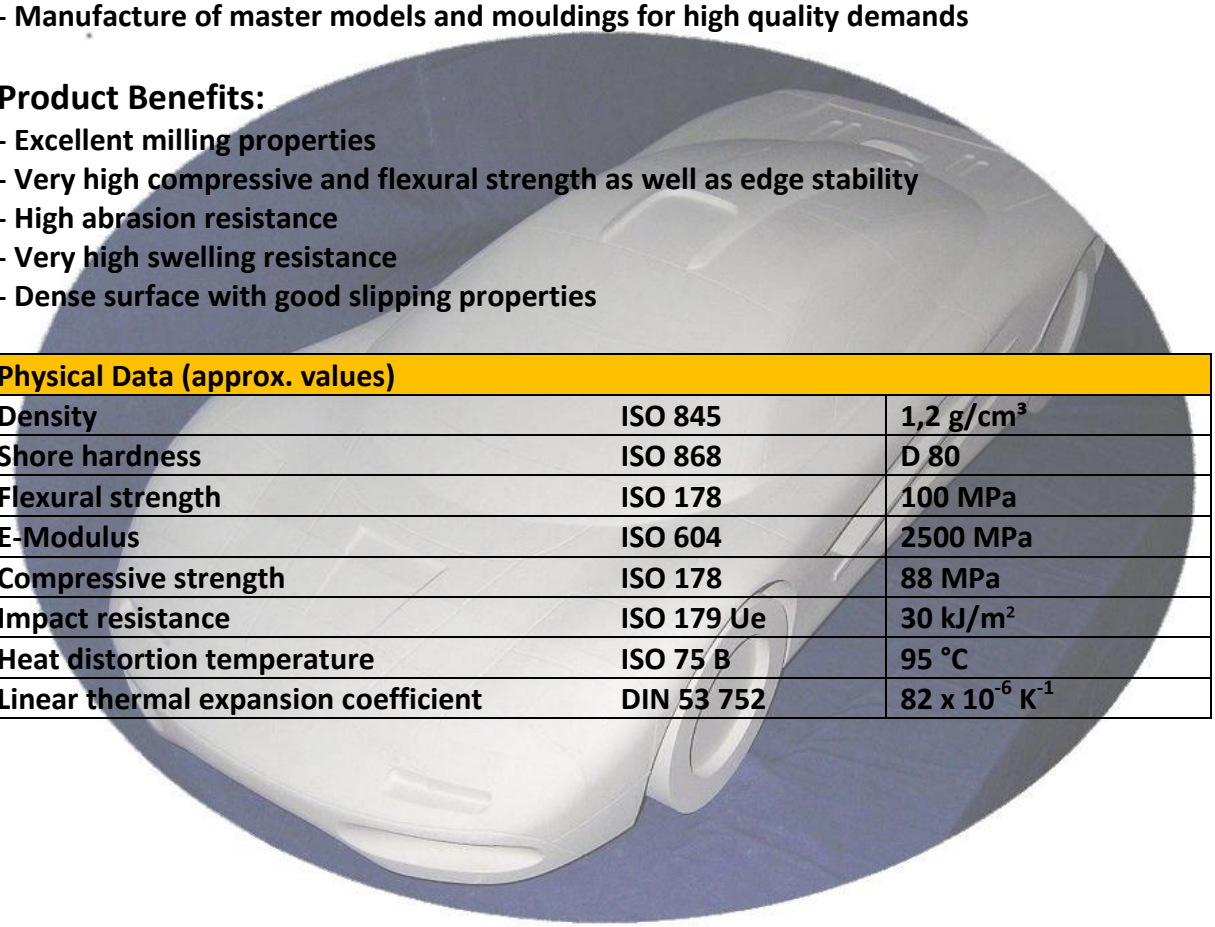
Block M940

Basis:

- Polyurethane, green

Areas of Application:

- Manufacture of foundry models match plates and core boxes
- Manufacture of various moulds and tools (e. g for metal sheet forming)
- Manufacture of master models and mouldings for high quality demands



Product Benefits:

- Excellent milling properties
- Very high compressive and flexural strength as well as edge stability
- High abrasion resistance
- Very high swelling resistance
- Dense surface with good slipping properties

Physical Data (approx. values)		
Density	ISO 845	1,2 g/cm³
Shore hardness	ISO 868	D 80
Flexural strength	ISO 178	100 MPa
E-Modulus	ISO 604	2500 MPa
Compressive strength	ISO 178	88 MPa
Impact resistance	ISO 179 Ue	30 kJ/m²
Heat distortion temperature	ISO 75 B	95 °C
Linear thermal expansion coefficient	DIN 53 752	82 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

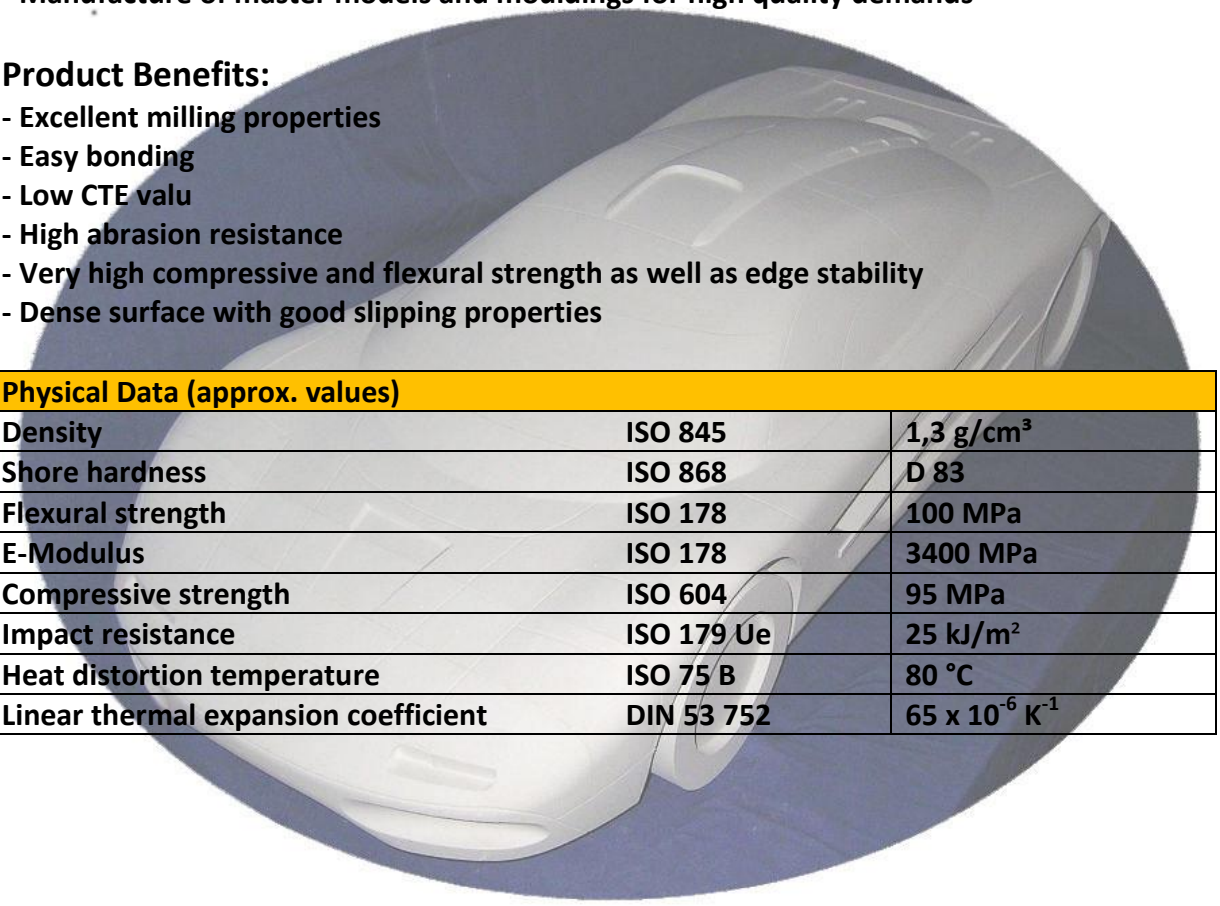
Block M945

Basis:

- Polyurethane, green

Areas of Application:

- Manufacture of foundry models match plates and core boxes
- Manufacture of various moulds and tools (e. g for metal sheet forming)
- Manufacture of master models and mouldings for high quality demands



Product Benefits:

- Excellent milling properties
- Easy bonding
- Low CTE valu
- High abrasion resistance
- Very high compressive and flexural strength as well as edge stability
- Dense surface with good slipping properties

Physical Data (approx. values)		
Density	ISO 845	1,3 g/cm³
Shore hardness	ISO 868	D 83
Flexural strength	ISO 178	100 MPa
E-Modulus	ISO 178	3400 MPa
Compressive strength	ISO 604	95 MPa
Impact resistance	ISO 179 Ue	25 kJ/m²
Heat distortion temperature	ISO 75 B	80 °C
Linear thermal expansion coefficient	DIN 53 752	65 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

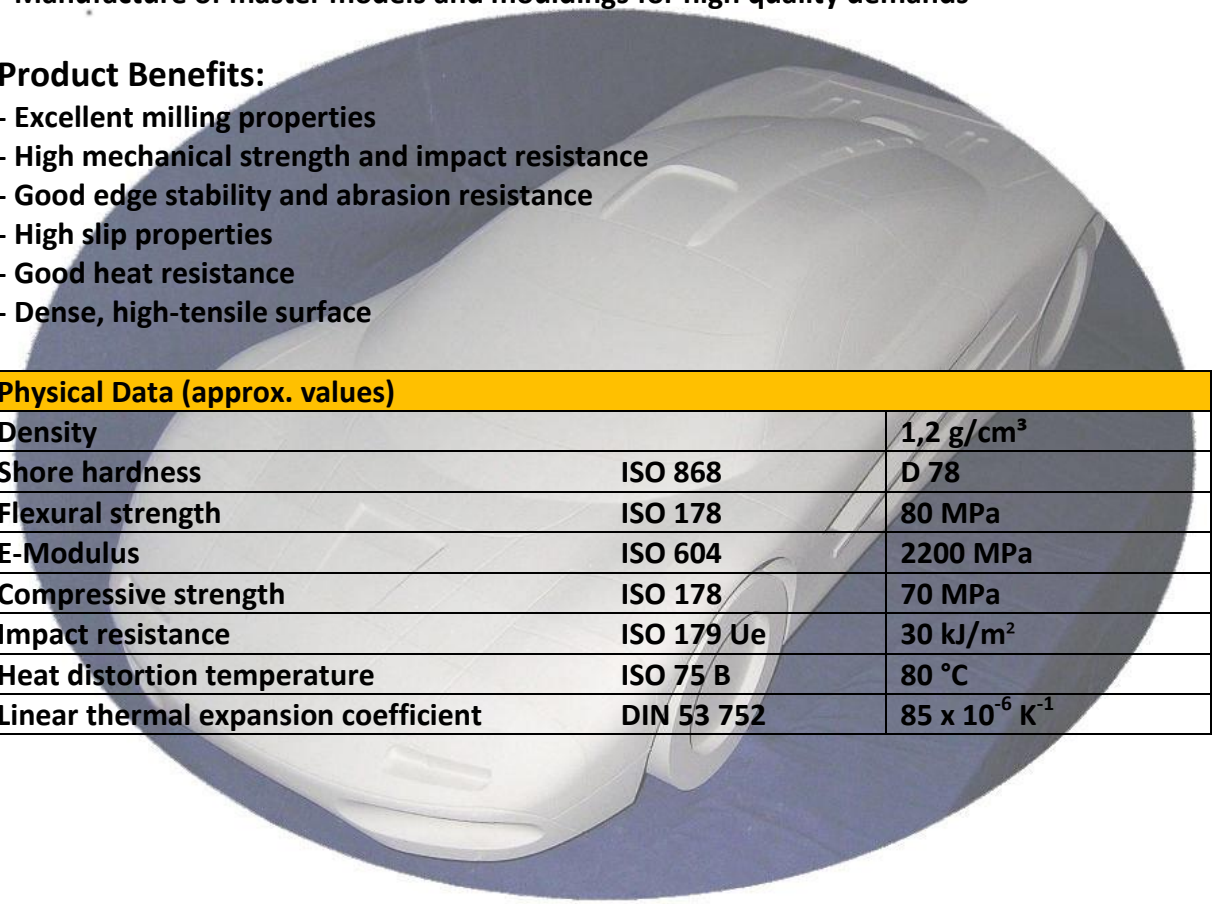
Block M960

Basis:

- Polyurethane, blue

Areas of Application:

- Manufacture of foundry models, match plates and core boxes
- Manufacture of various moulds and tools (e. g for metal sheet forming)
- Manufacture of master models and mouldings for high quality demands



Product Benefits:

- Excellent milling properties
- High mechanical strength and impact resistance
- Good edge stability and abrasion resistance
- High slip properties
- Good heat resistance
- Dense, high-tensile surface

Physical Data (approx. values)		
Density		1,2 g/cm³
Shore hardness	ISO 868	D 78
Flexural strength	ISO 178	80 MPa
E-Modulus	ISO 604	2200 MPa
Compressive strength	ISO 178	70 MPa
Impact resistance	ISO 179 Ue	30 kJ/m²
Heat distortion temperature	ISO 75 B	80 °C
Linear thermal expansion coefficient	DIN 53 752	85 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

Block M970

Basis:

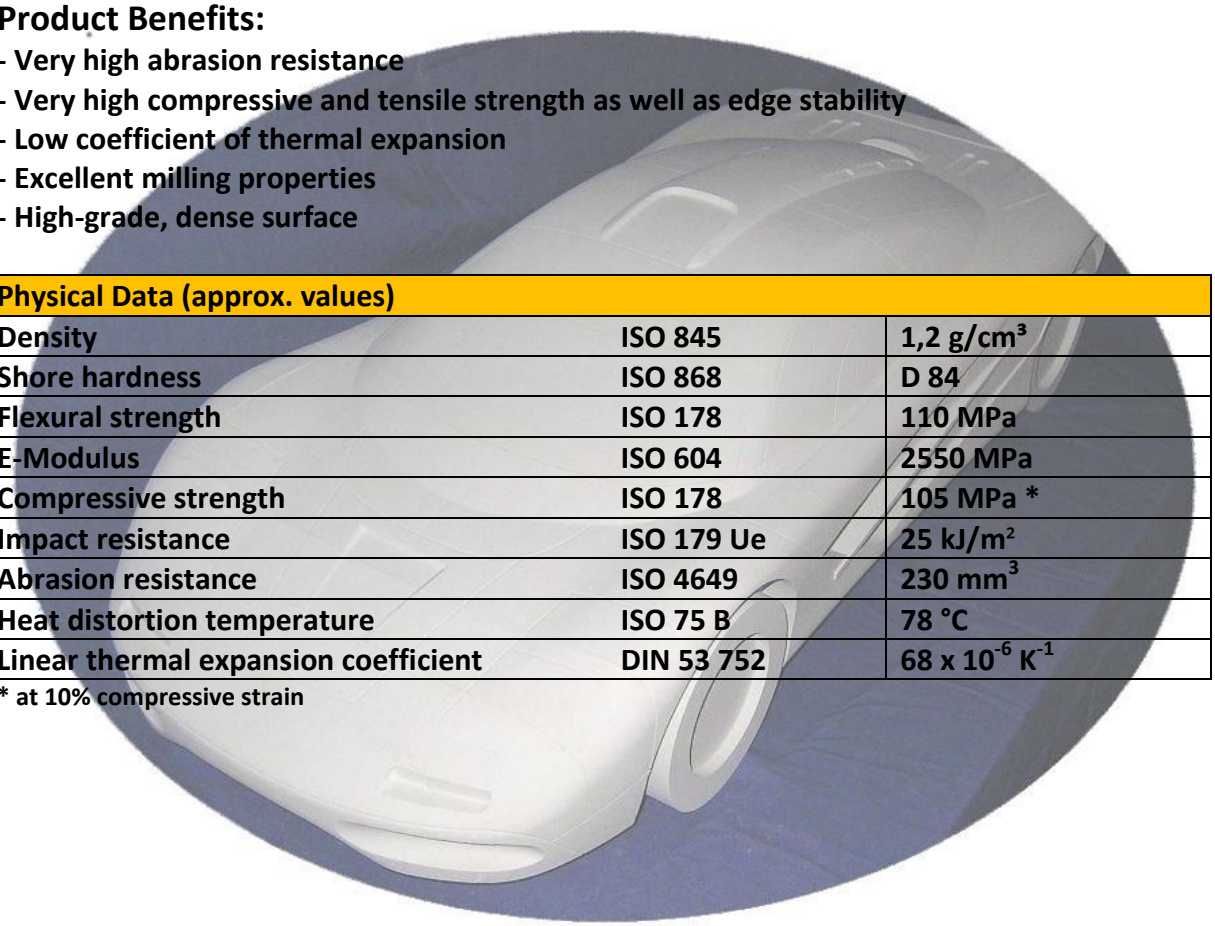
- Polyurethane, turquoise

Areas of Application:

- Manufacture of core boxes, foundry models and match plates in Coldbox Processing

Product Benefits:

- Very high abrasion resistance
- Very high compressive and tensile strength as well as edge stability
- Low coefficient of thermal expansion
- Excellent milling properties
- High-grade, dense surface



Physical Data (approx. values)		
Density	ISO 845	1,2 g/cm³
Shore hardness	ISO 868	D 84
Flexural strength	ISO 178	110 MPa
E-Modulus	ISO 604	2550 MPa
Compressive strength	ISO 178	105 MPa *
Impact resistance	ISO 179 Ue	25 kJ/m²
Abrasion resistance	ISO 4649	230 mm³
Heat distortion temperature	ISO 75 B	78 °C
Linear thermal expansion coefficient	DIN 53 752	68 x 10^{-6} K^{-1}

* at 10% compressive strain

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

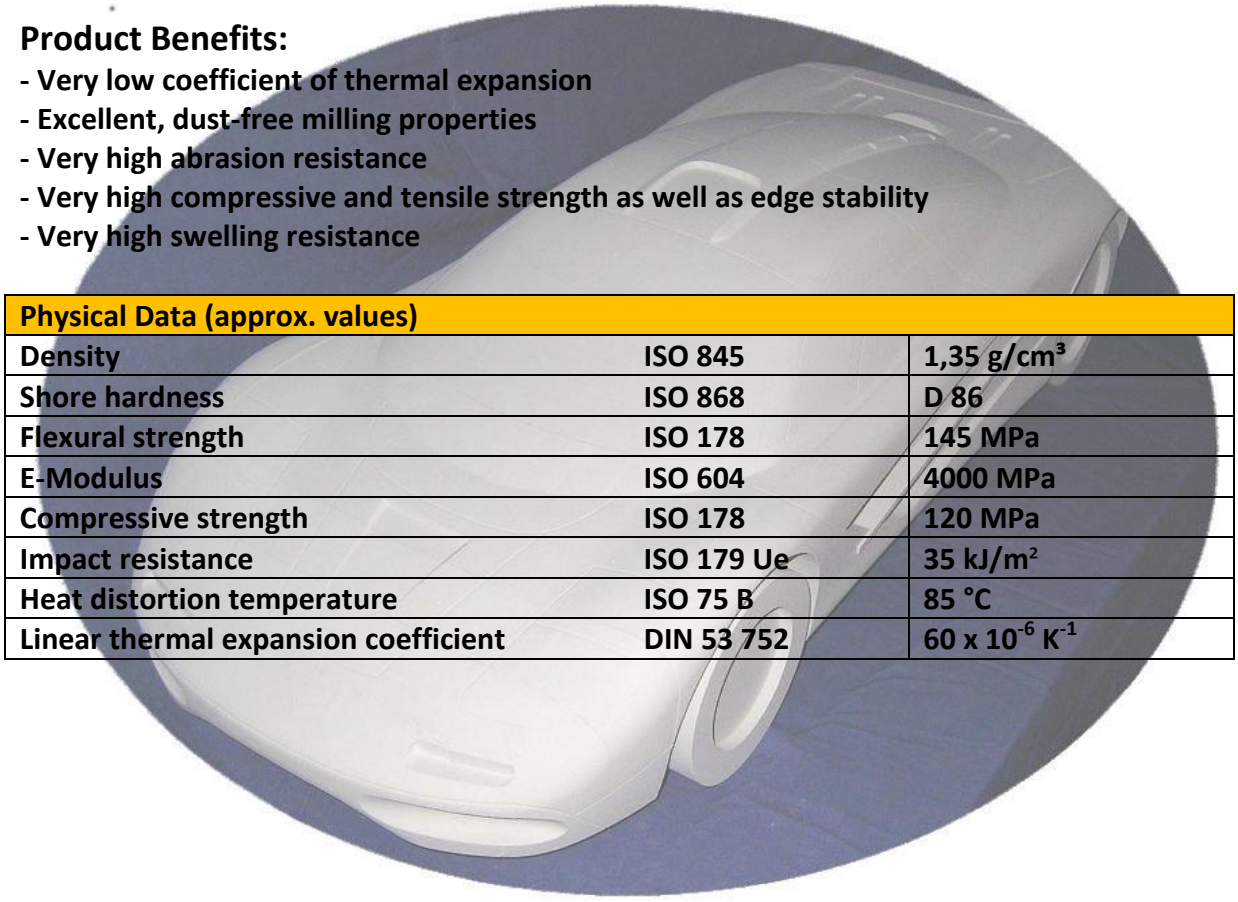
Block M980

Basis:

- Polyurethane, blue

Areas of Application:

- Manufacture of core boxes, foundry models and match plates in Coldbox Processing
- Manufacture of diverse moulds, tools and gauges



Product Benefits:

- Very low coefficient of thermal expansion
- Excellent, dust-free milling properties
- Very high abrasion resistance
- Very high compressive and tensile strength as well as edge stability
- Very high swelling resistance

Physical Data (approx. values)		
Density	ISO 845	1,35 g/cm³
Shore hardness	ISO 868	D 86
Flexural strength	ISO 178	145 MPa
E-Modulus	ISO 604	4000 MPa
Compressive strength	ISO 178	120 MPa
Impact resistance	ISO 179 Ue	35 kJ/m²
Heat distortion temperature	ISO 75 B	85 °C
Linear thermal expansion coefficient	DIN 53 752	60 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

Block M1000

Basis:

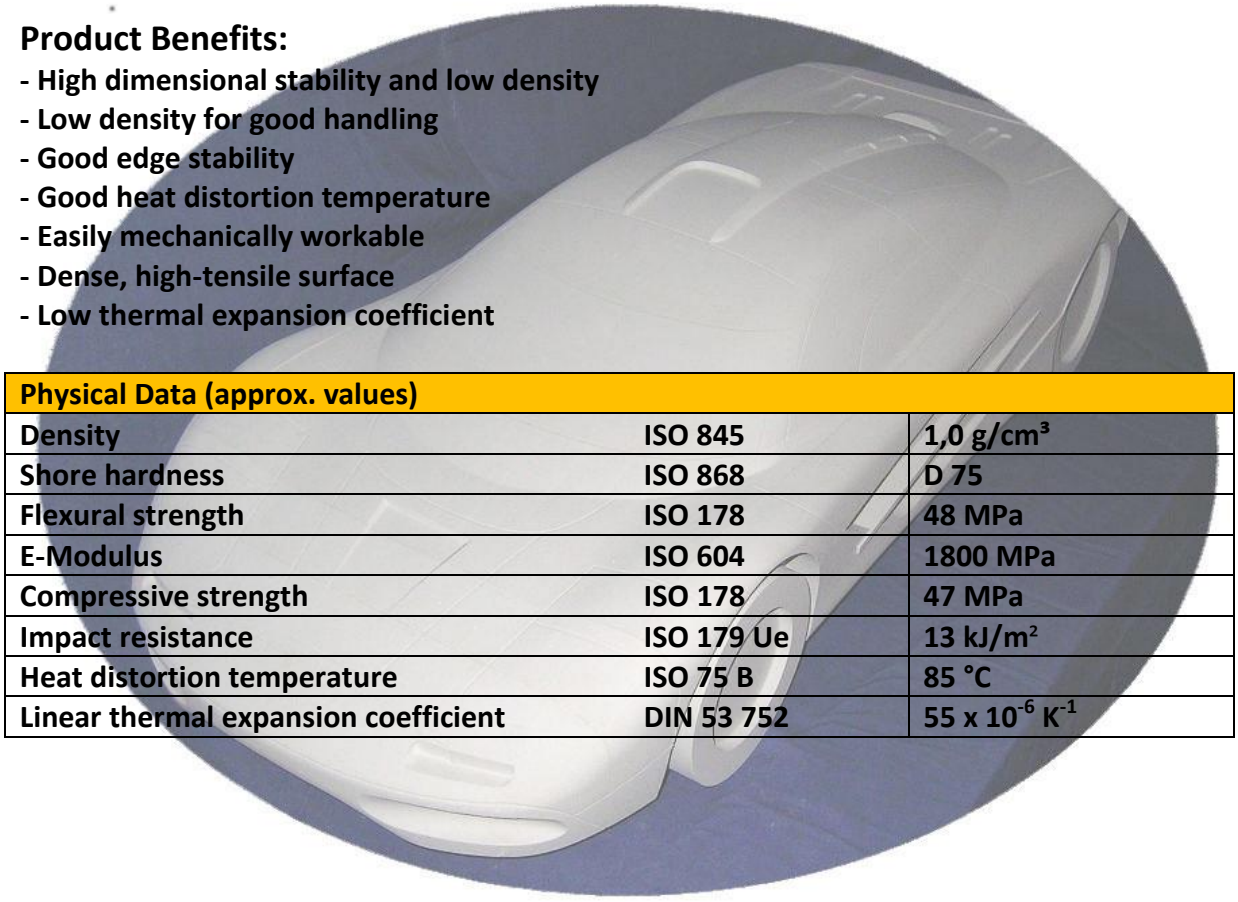
- Polyurethane, white

Areas of Application:

- Manufacture of true-to-size gauges and moulds
- Manufacture of foundry models and master models

Product Benefits:

- High dimensional stability and low density
- Low density for good handling
- Good edge stability
- Good heat distortion temperature
- Easily mechanically workable
- Dense, high-tensile surface
- Low thermal expansion coefficient



Physical Data (approx. values)		
Density	ISO 845	1,0 g/cm³
Shore hardness	ISO 868	D 75
Flexural strength	ISO 178	48 MPa
E-Modulus	ISO 604	1800 MPa
Compressive strength	ISO 178	47 MPa
Impact resistance	ISO 179 Ue	13 kJ/m²
Heat distortion temperature	ISO 75 B	85 °C
Linear thermal expansion coefficient	DIN 53 752	55 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

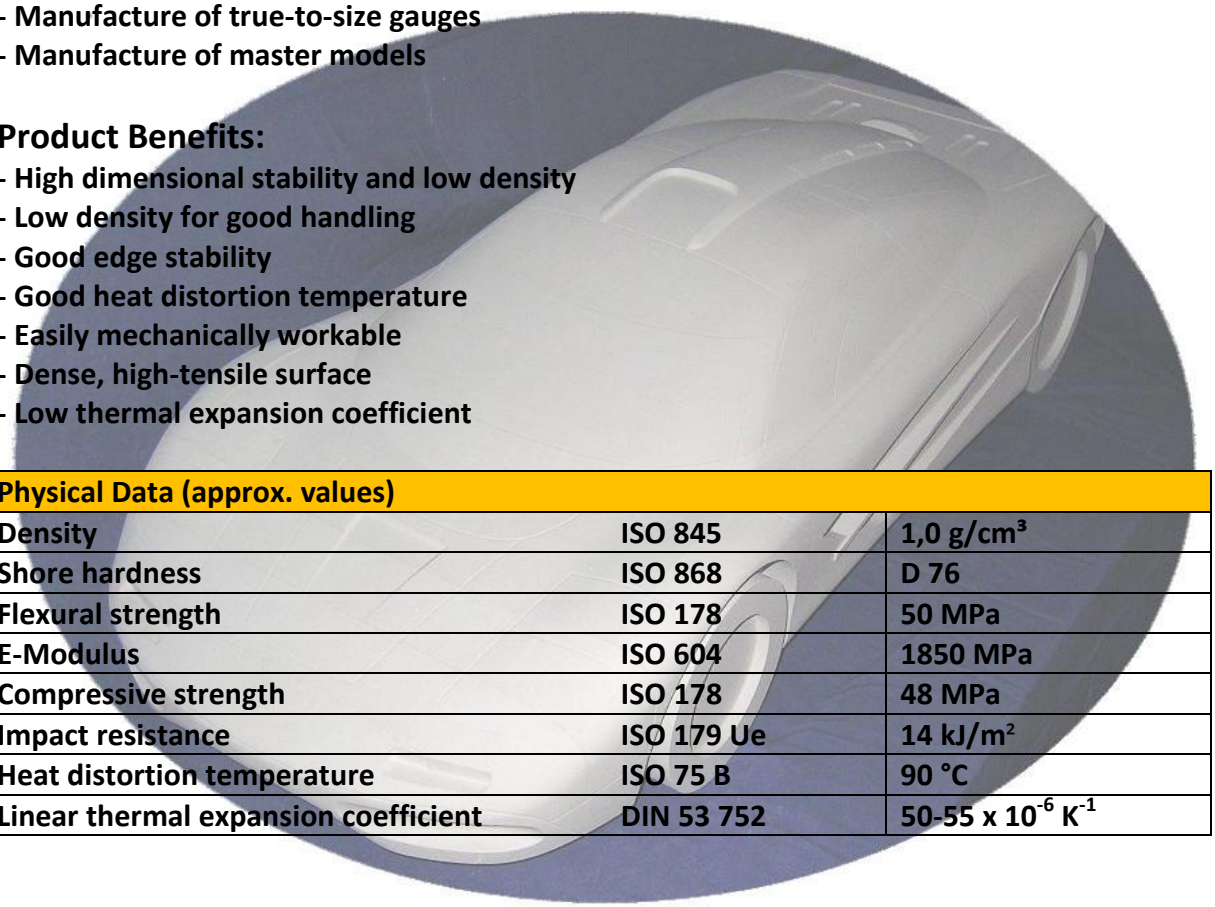
Block M1050

Basis:

- Polyurethane, grey

Areas of Application:

- Manufacture of vacuumforming moulds
- Manufacture of true-to-size gauges
- Manufacture of master models



Product Benefits:

- High dimensional stability and low density
- Low density for good handling
- Good edge stability
- Good heat distortion temperature
- Easily mechanically workable
- Dense, high-tensile surface
- Low thermal expansion coefficient

Physical Data (approx. values)		
Density	ISO 845	1,0 g/cm³
Shore hardness	ISO 868	D 76
Flexural strength	ISO 178	50 MPa
E-Modulus	ISO 604	1850 MPa
Compressive strength	ISO 178	48 MPa
Impact resistance	ISO 179 Ue	14 kJ/m²
Heat distortion temperature	ISO 75 B	90 °C
Linear thermal expansion coefficient	DIN 53 752	50-55 x 10^{-6} K^{-1}

BA PROTOTYPVERKSTAD

Materialdata Blockmaterial

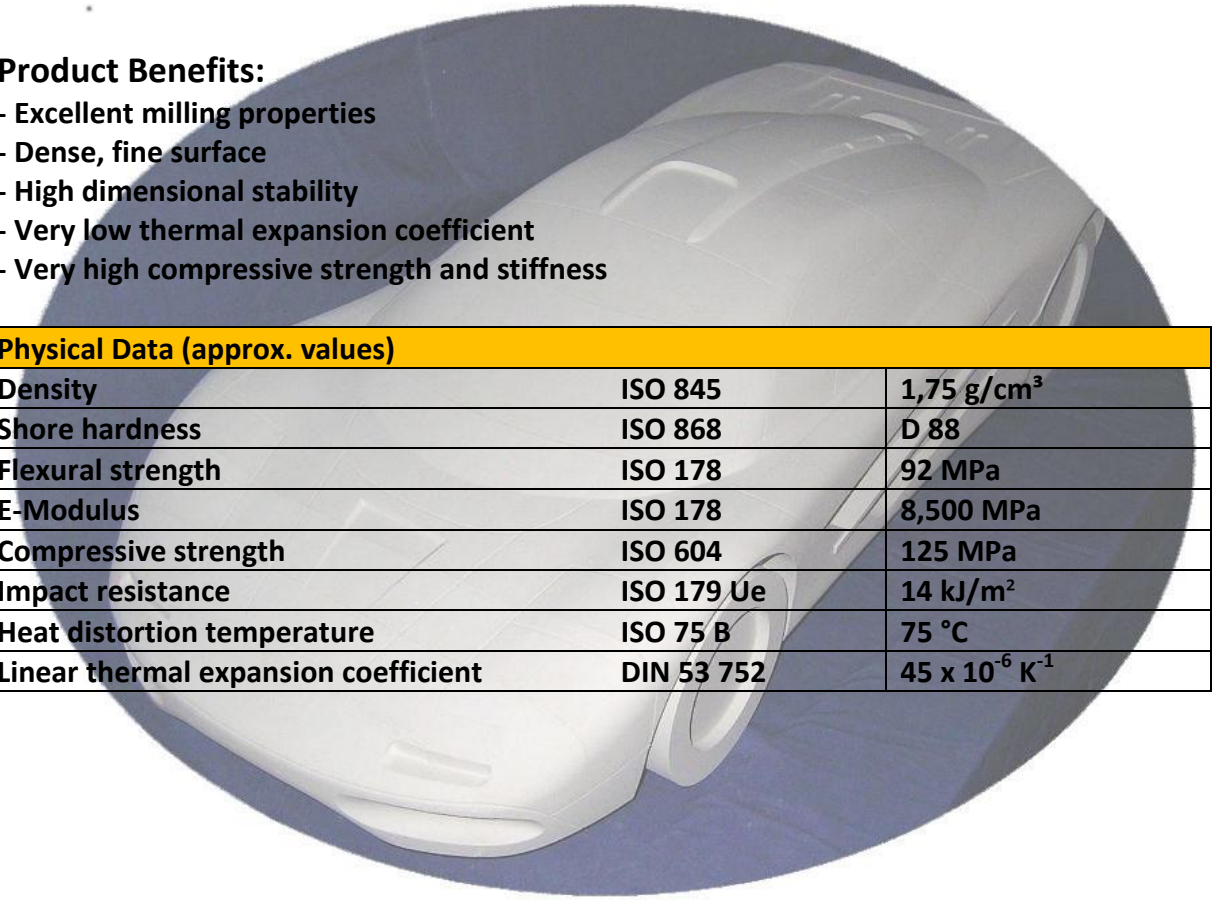
Block M1700

Basis:

- Polyurethane, grey

Areas of Application:

- Manufacture of true-to-size gauges and moulds
- Manufacture of metal sheet forming tools
- Manufacture of hammer forms



Product Benefits:

- Excellent milling properties
- Dense, fine surface
- High dimensional stability
- Very low thermal expansion coefficient
- Very high compressive strength and stiffness

Physical Data (approx. values)		
Density	ISO 845	1,75 g/cm³
Shore hardness	ISO 868	D 88
Flexural strength	ISO 178	92 MPa
E-Modulus	ISO 178	8,500 MPa
Compressive strength	ISO 604	125 MPa
Impact resistance	ISO 179 Ue	14 kJ/m²
Heat distortion temperature	ISO 75 B	75 °C
Linear thermal expansion coefficient	DIN 53 752	45 x 10^{-6} K^{-1}