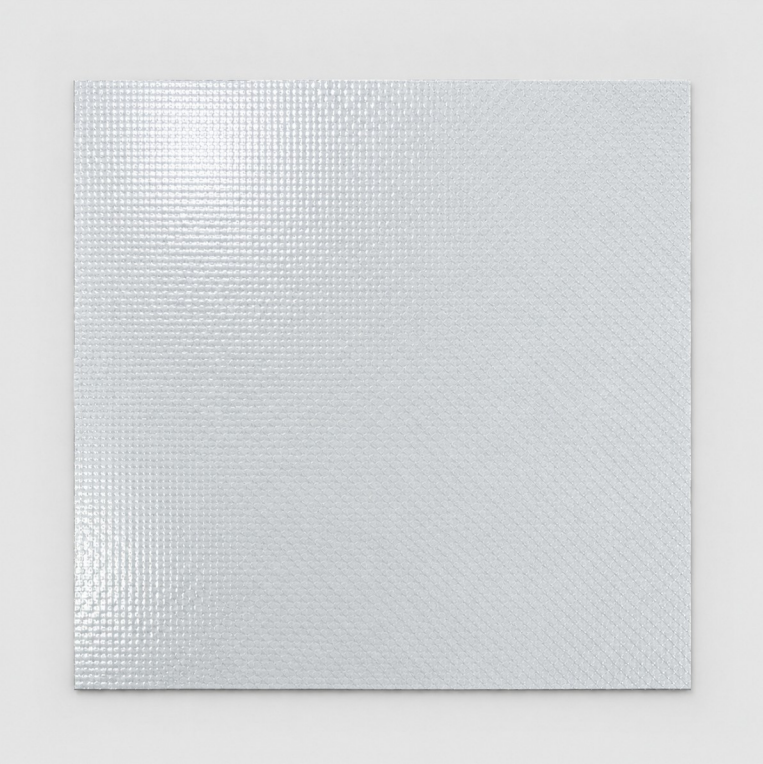
MOTET Membrane Technical Handbook

Material properties and sample illustrations

Technical data for inner, outer and bottom membranes, with sample illustrations.



White membrane sample illustration

Motet Gasification (Sichuan) Energy Development Co., Ltd.

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Material Directory

MOTET numbers identify entries in this handbook, not original material production models.

Reference	Membrane type	Mass per unit area	Data page	Sample page
MOTET-0001	Inner Membrane	1200 g/m² ±5%	3	4
MOTET-0002	Inner Membrane	1200 g/m² (-5% / +10%)	5	6
MOTET-0003	Inner Membrane	Approx. 1500 g/m²	7	8
MOTET-0004	Inner Membrane	Approx. 1200 g/m²	9	10
MOTET-0005	Inner Membrane	Approx. 1200 g/m²	11	12
MOTET-0006	Inner Membrane	Approx. 1500 g/m²	13	14
MOTET-0007	Inner Membrane	Approx. 1400 g/m²	15	16
MOTET-0008	Inner Membrane	Approx. 1400 g/m²	17	18
MOTET-0009	Outer Membrane	1400 g/m²	19	20
MOTET-0010	Outer Membrane	Approx. 1000 g/m²	21	22
MOTET-0011	Outer Membrane	Approx. 1200 g/m²	23	24
MOTET-0012	Outer Membrane	1350 g/m²	25	26
MOTET-0013	Outer Membrane	1400 g/m²	27	28
MOTET-0014	Outer Membrane	Approx. 1050 g/m²	29	30
MOTET-0015	Outer Membrane	Approx. 1150 g/m²	31	32
MOTET-0017	Outer Membrane	1200 g/m² ±5%	33	34
MOTET-0024	Bottom Membrane	900 g/m² ±5%	35	36
MOTET-0016	Bottom Membrane	Approx. 950 g/m²	37	38
MOTET-0021	Bottom Membrane	Approx. 950 g/m²	39	40

Bottom-membrane use is designated by MOTET. Mass per unit area alone does not determine suitability.

Inner Membrane

MOTET-0001 | Technical Data

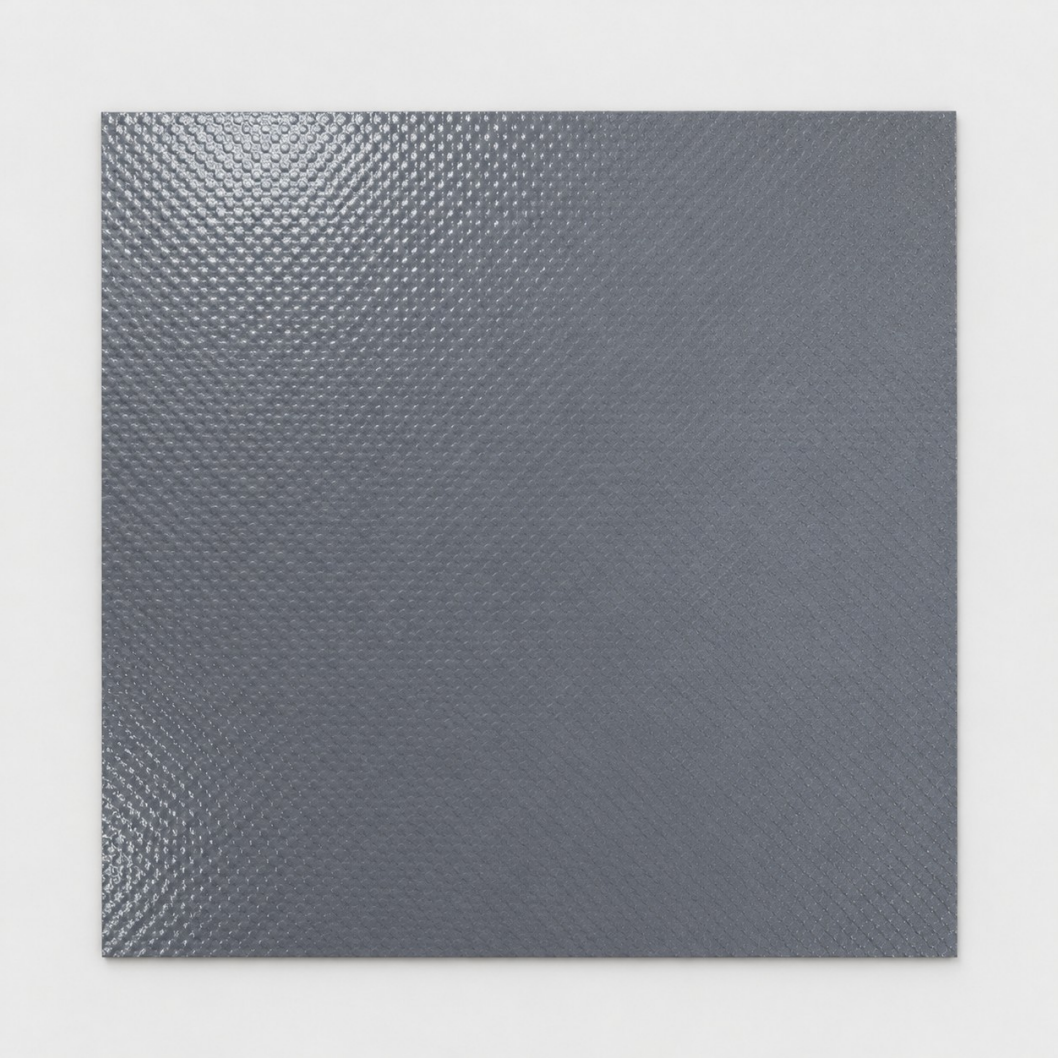
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	High-gloss acrylic finish
	Mass per unit area	1200 g/m² ±5%
	Tensile strength (warp / weft)	≥5800 / ≥5400 N/5 cm
	Tear resistance (warp / weft)	≥900 / ≥800 N
	Coating adhesion (HF method)	≥110 N/5 cm
	Cold resistance	-30 °C
	Heat resistance	+70 °C
	Flex resistance	At least 100,000 bends
	Methane permeability	<500 cm³/(m²·d·bar)
	Fire behaviour classification	DIN 4102 B1
	Width	Maximum 320 cm

Material data compiled by MOTET; not an independent test report or whole-holder certification.

Inner Membrane

MOTET-0001 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0001	Grey front / grey back	2026

Inner Membrane

MOTET-0002 | Technical Data

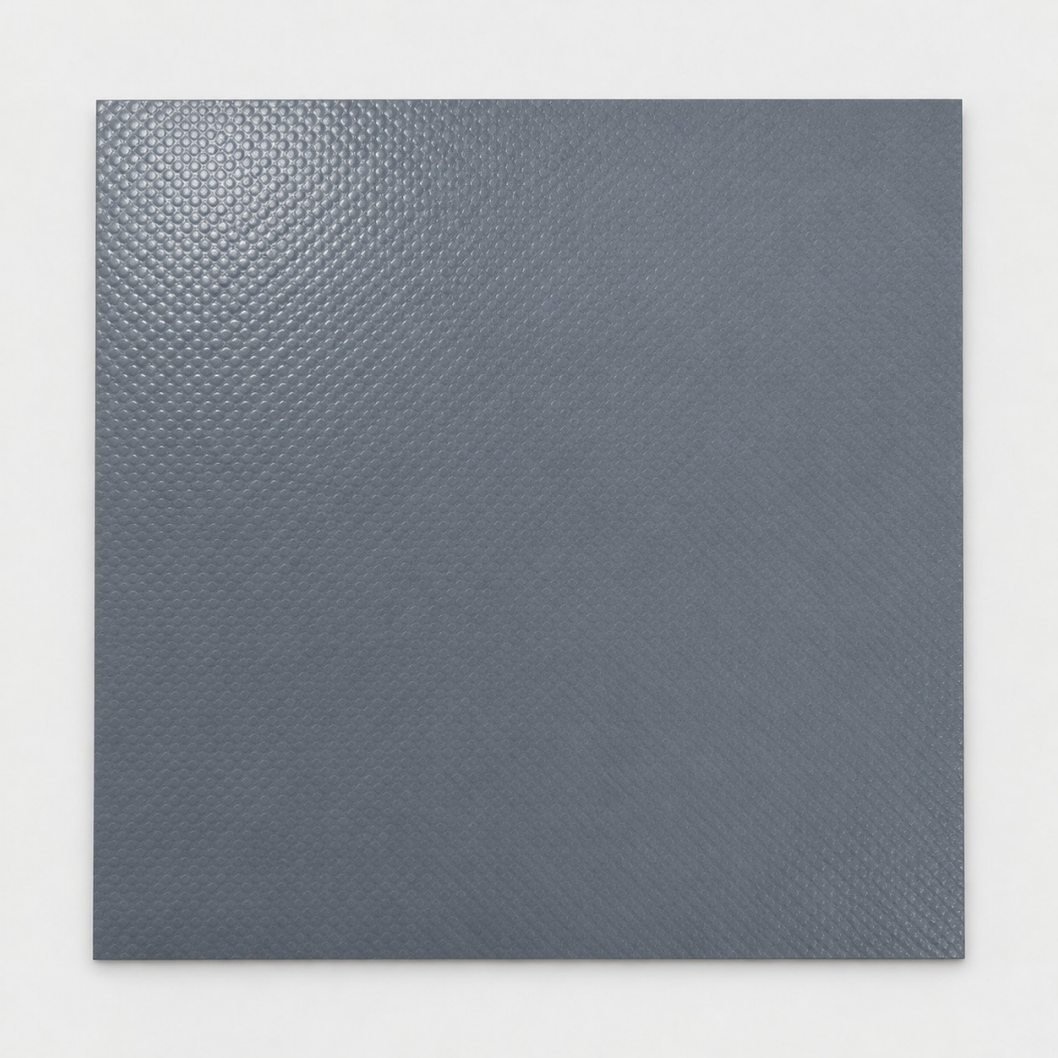
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Unlacquered, matt embossed finish
	Mass per unit area	1200 g/m² (-5% / +10%)
	Tensile strength (warp / weft)	≥4400 / ≥4200 N/5 cm
	Tear resistance (warp / weft)	≥550 / ≥500 N
	Coating adhesion (HF method)	≥100 N/5 cm
	Cold resistance	-30 °C
	Heat resistance	+70 °C
	Flex resistance	At least 100,000 bends
	Nominal thickness	1.0 mm
	Methane permeability	<131 cm³/(m²·d·bar), 23 °C

Material data compiled by MOTET; not an independent test report or whole-holder certification.

Inner Membrane

MOTET-0002 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0002	Grey front / grey back	2026

Inner Membrane

MOTET-0003 | Technical Data

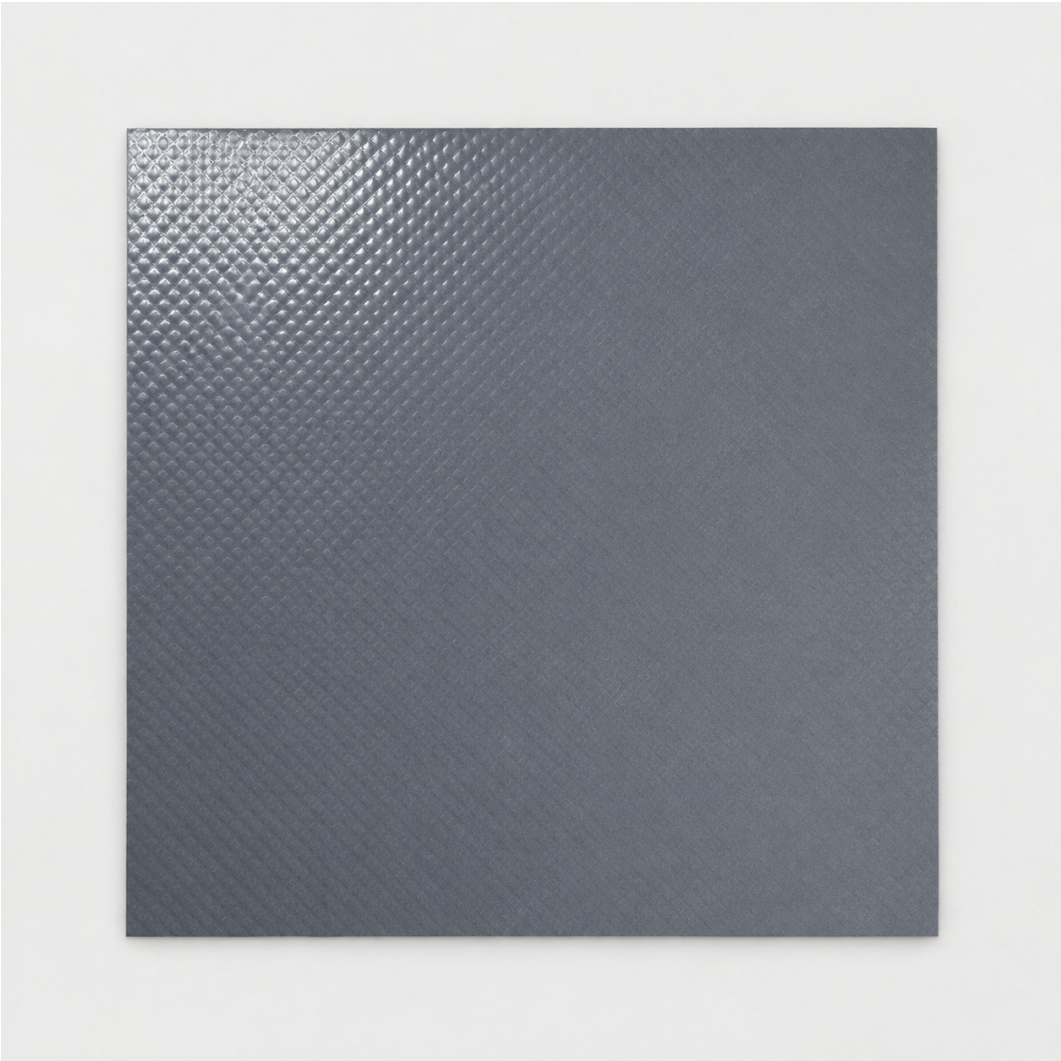
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Acrylic finish on both sides
	Mass per unit area	Approx. 1500 g/m²
	Tensile strength (warp / weft)	8000 / 7500 N/5 cm
	Tear resistance (warp / weft)	1200 / 1100 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	GB 8624 B1
	Methane permeability	≤200 cm³/(m²·d·bar)

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Inner Membrane

MOTET-0003 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0003	Grey front / grey back	2026

Inner Membrane

MOTET-0004 | Technical Data

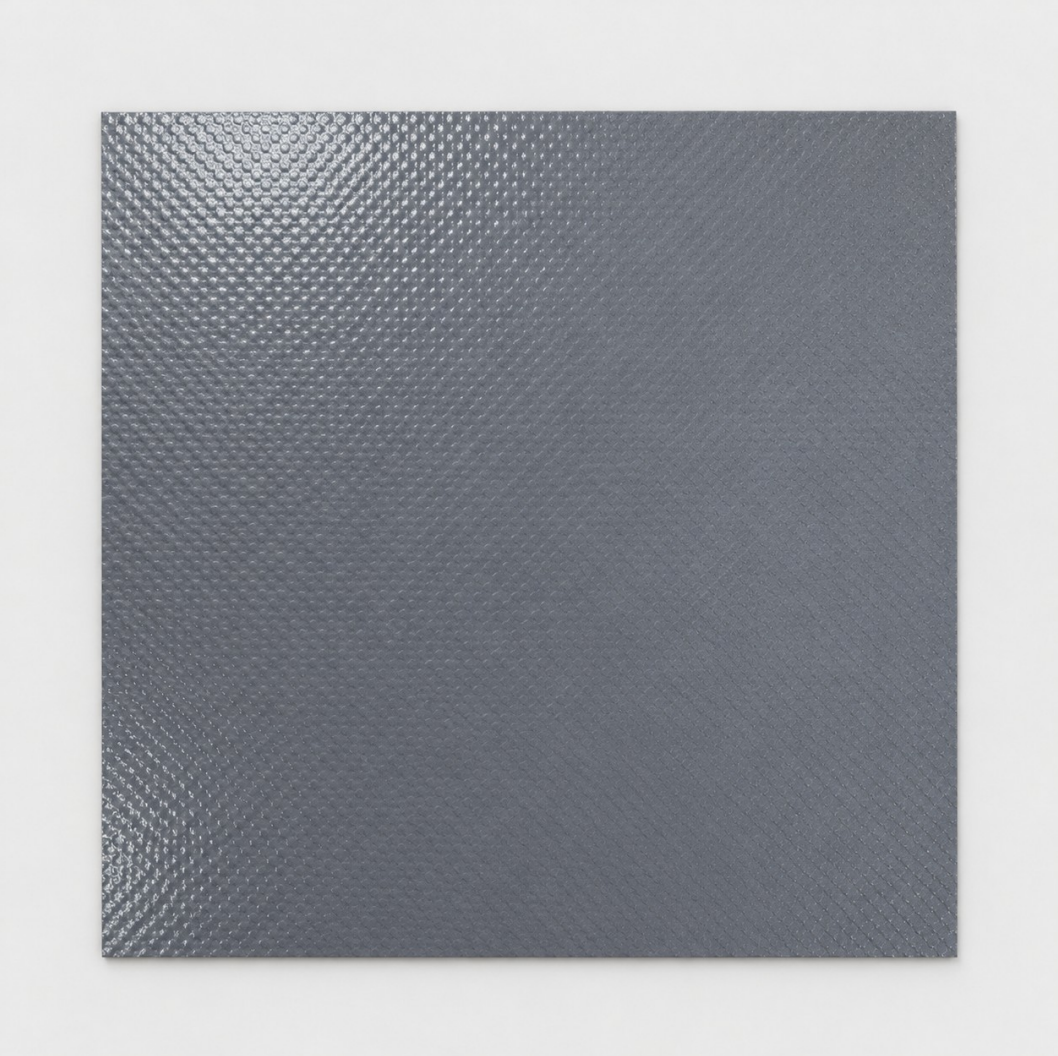
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Acrylic finish on both sides
	Mass per unit area	Approx. 1200 g/m²
	Tensile strength (warp / weft)	6000 / 5400 N/5 cm
	Tear resistance (warp / weft)	800 / 600 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1
	Methane permeability	200 cm³/(m²·d·bar)

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Inner Membrane

MOTET-0004 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0004	Grey front / grey back	2026

Inner Membrane

MOTET-0005 | Technical Data

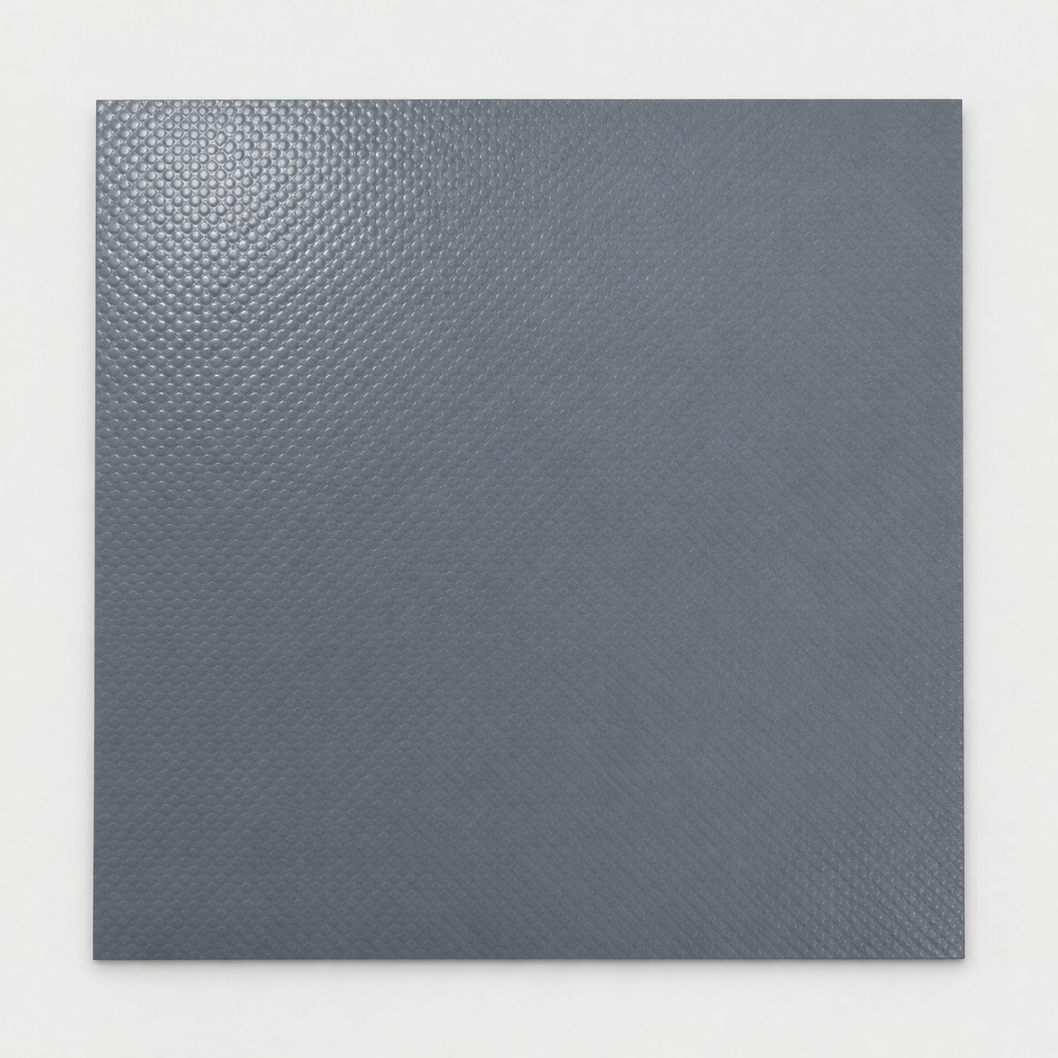
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	PVDF front / acrylic back
	Mass per unit area	Approx. 1200 g/m²
	Tensile strength (warp / weft)	6000 / 5400 N/5 cm
	Tear resistance (warp / weft)	800 / 600 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1
	Methane permeability	200 cm³/(m²·d·bar)

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Inner Membrane

MOTET-0005 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0005	Grey front / grey back	2026

Inner Membrane

MOTET-0006 | Technical Data

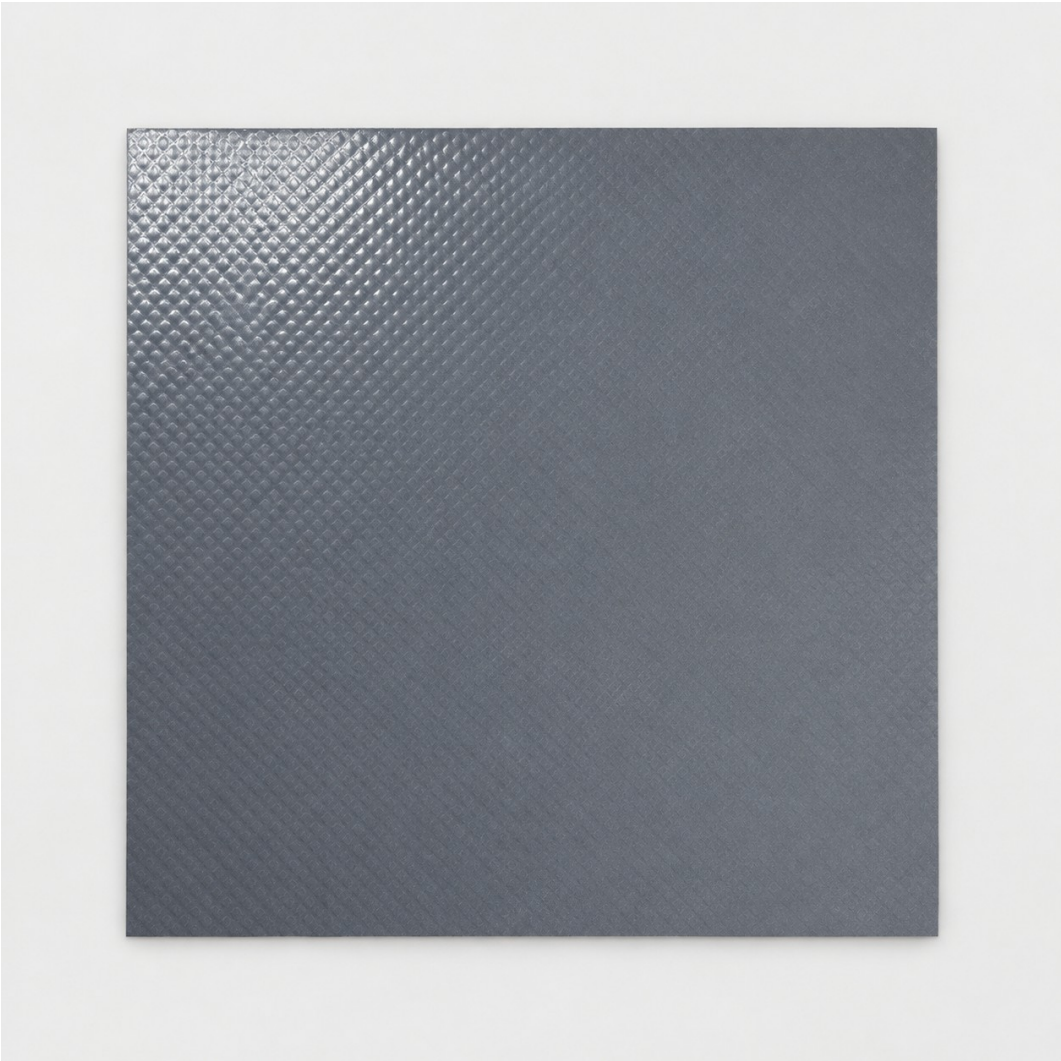
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Acrylic finish on both sides
	Mass per unit area	Approx. 1500 g/m²
	Tensile strength (warp / weft)	6000 / 5400 N/5 cm
	Tear resistance (warp / weft)	800 / 600 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1
	Methane permeability	150 cm³/(m²·d·bar)

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Inner Membrane

MOTET-0006 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0006	Grey front / grey back	2026

Inner Membrane

MOTET-0007 | Technical Data

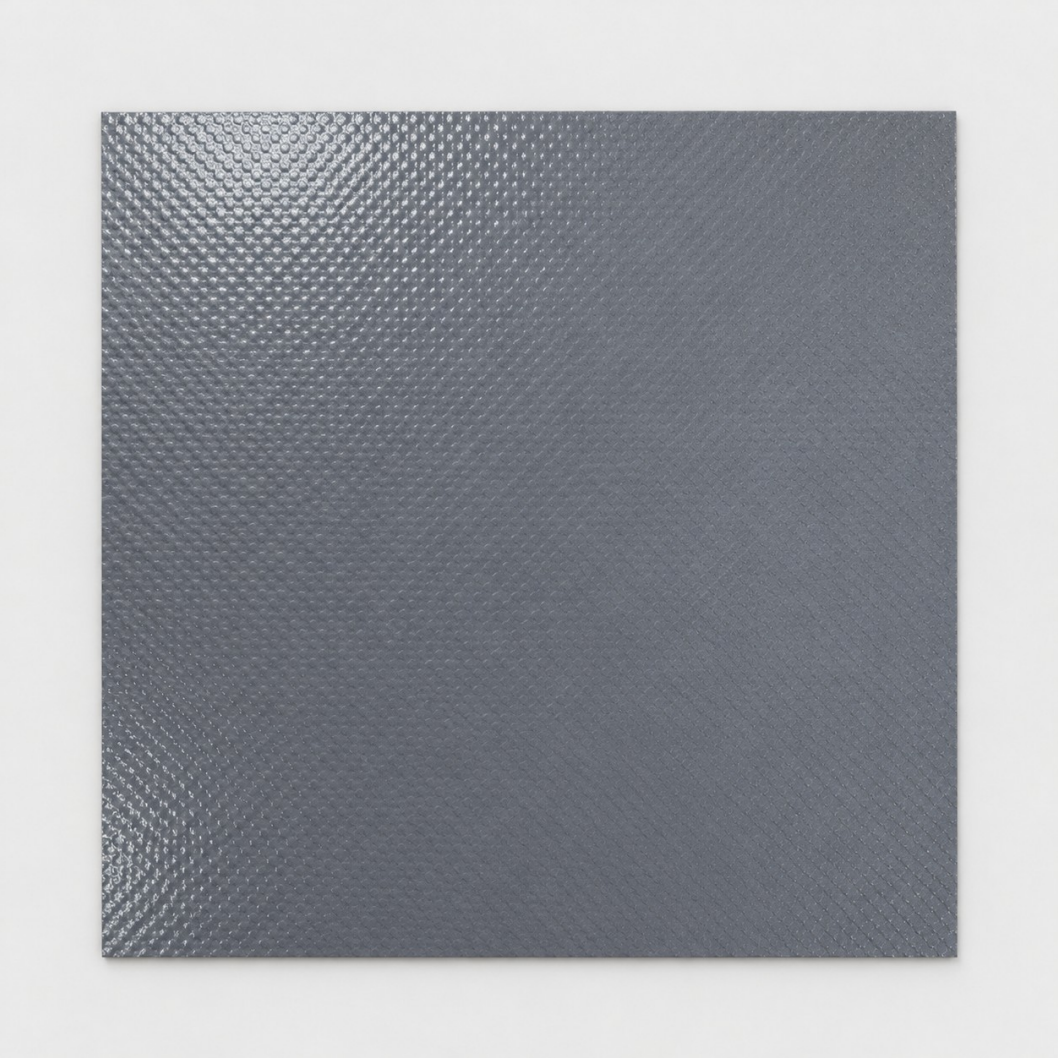
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF on both sides
	Mass per unit area	Approx. 1400 g/m²
	Tensile strength (warp / weft)	8500 / 8000 N/5 cm
	Tear resistance (warp / weft)	1200 / 1100 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	GB 8624 B1
	Methane permeability	≤200 cm³/(m²·d·bar)

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Inner Membrane

MOTET-0007 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0007	Grey front / grey back	2026

Inner Membrane

MOTET-0008 | Technical Data

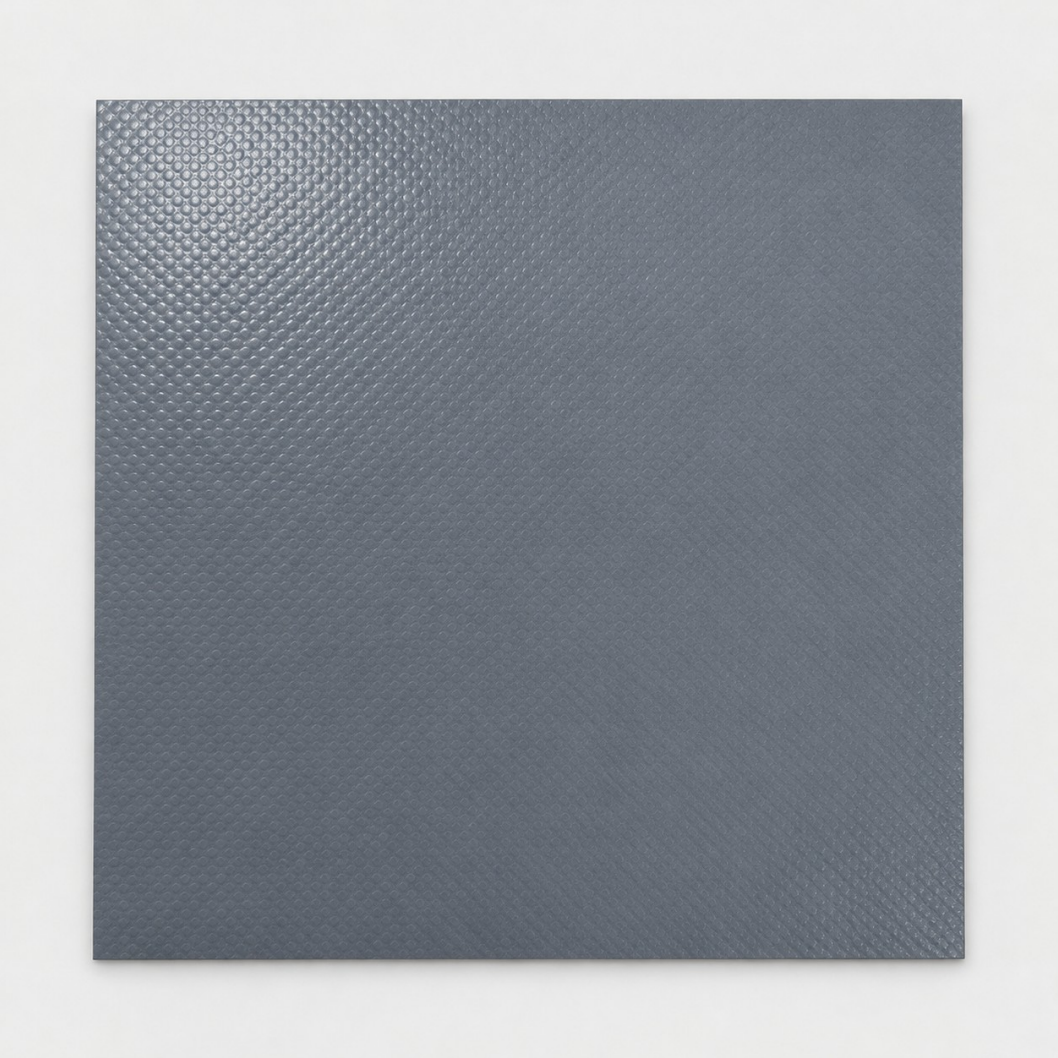
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF on both sides
	Mass per unit area	Approx. 1400 g/m²
	Tensile strength (warp / weft)	8000 / 7500 N/5 cm
	Tear resistance (warp / weft)	1200 / 1100 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1
	Methane permeability	≤200 cm³/(m²·d·bar)

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Inner Membrane

MOTET-0008 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0008	Grey front / grey back	2026

Outer Membrane

MOTET-0009 | Technical Data

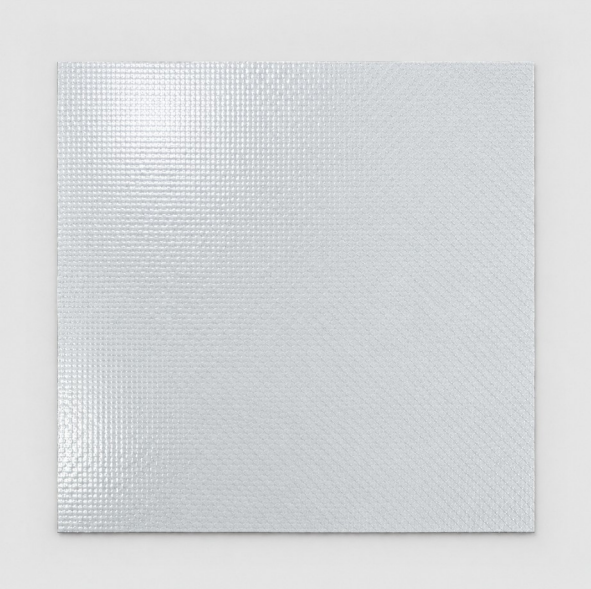
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF front / acrylic back
	Mass per unit area	1400 g/m²
	Tensile strength (warp / weft)	8000 / 7500 N/5 cm
	Tear resistance (warp / weft)	1300 / 1300 N
	Coating adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1

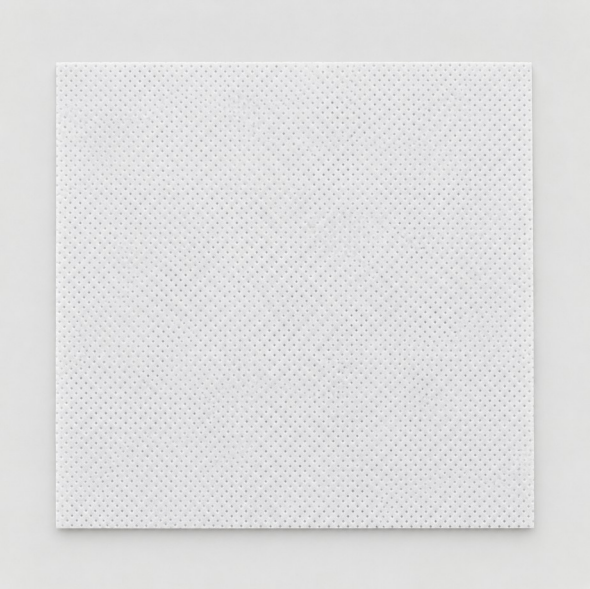
Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Outer Membrane

MOTET-0009 | Sample Illustration

Sample illustration





Reference	Colour and sides shown	Year photographed
MOTET-0009	White front / white back	2026

Outer Membrane

MOTET-0010 | Technical Data

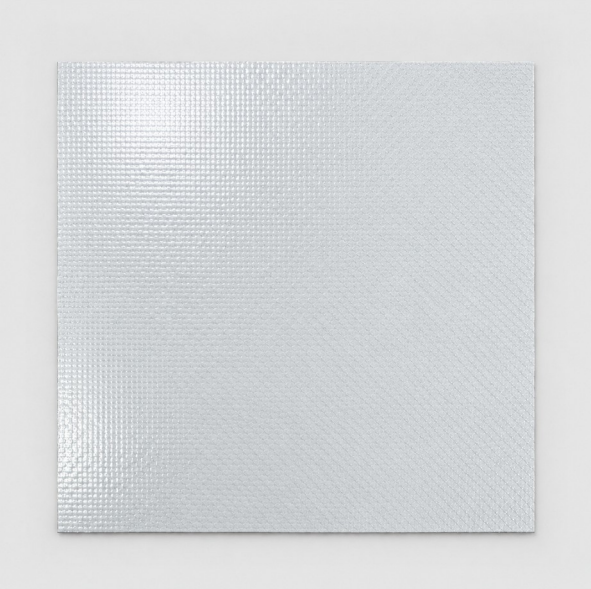
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF on both sides
	Mass per unit area	Approx. 1000 g/m²
	Tensile strength (warp / weft)	4200 / 3800 N/5 cm
	Tear resistance (warp / weft)	500 / 400 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1

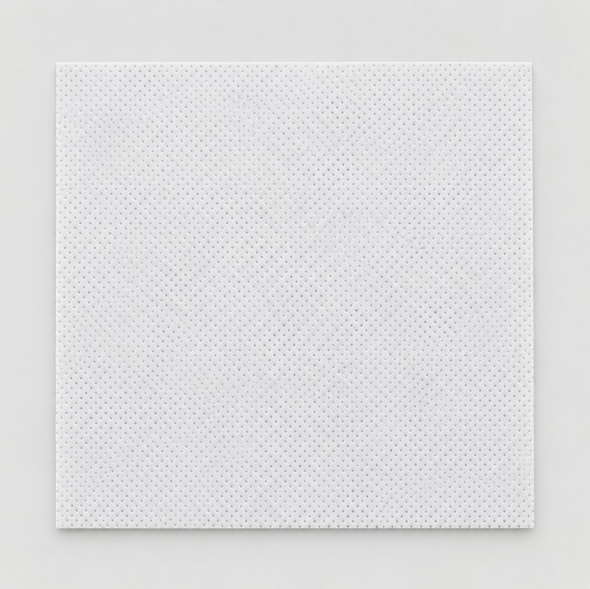
Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Outer Membrane

MOTET-0010 | Sample Illustration

Sample illustration





Reference	Colour and sides shown	Year photographed
MOTET-0010	White front / white back	2026

Outer Membrane

MOTET-0011 | Technical Data

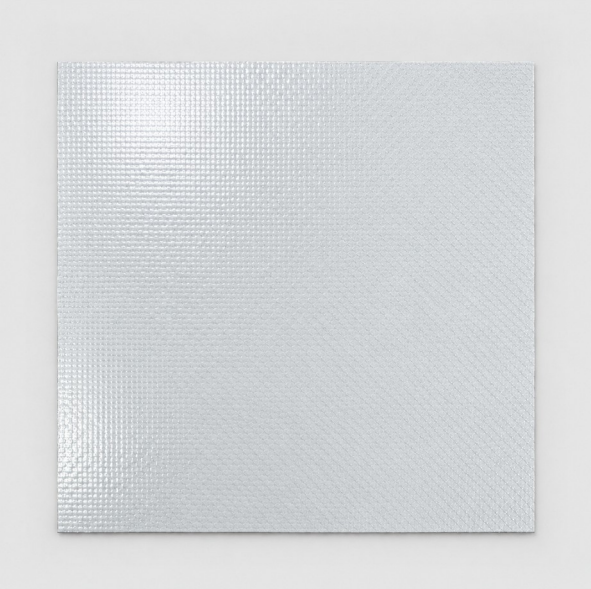
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF front / acrylic back
	Mass per unit area	Approx. 1200 g/m²
	Tensile strength (warp / weft)	6000 / 5400 N/5 cm
	Tear resistance (warp / weft)	800 / 600 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1

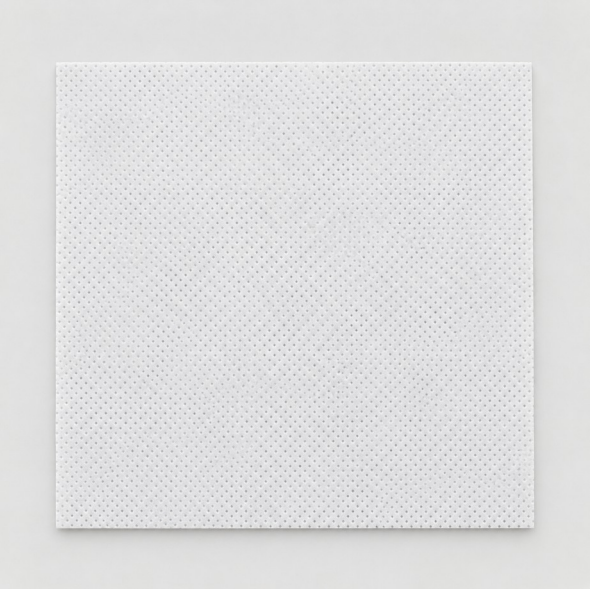
Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Outer Membrane

MOTET-0011 | Sample Illustration

Sample illustration





Reference	Colour and sides shown	Year photographed
MOTET-0011	White front / white back	2026

Outer Membrane

MOTET-0012 | Technical Data

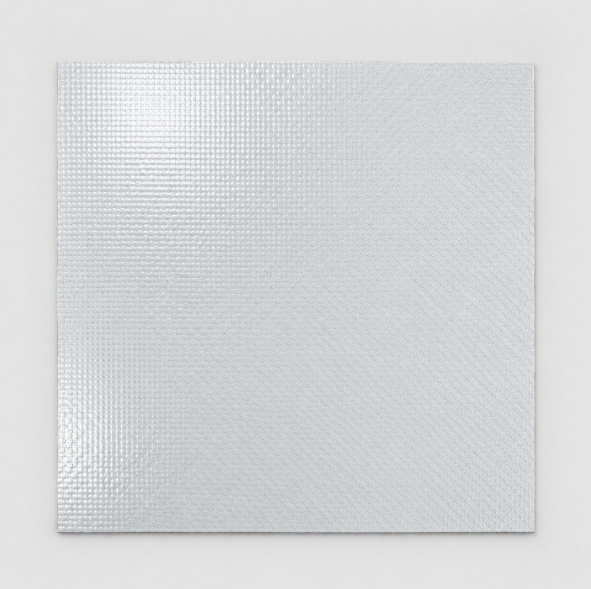
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF front / acrylic back
	Mass per unit area	1350 g/m²
	Tensile strength (warp / weft)	8000 / 7500 N/5 cm
	Tear resistance (warp / weft)	1300 / 1300 N
	Coating adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1

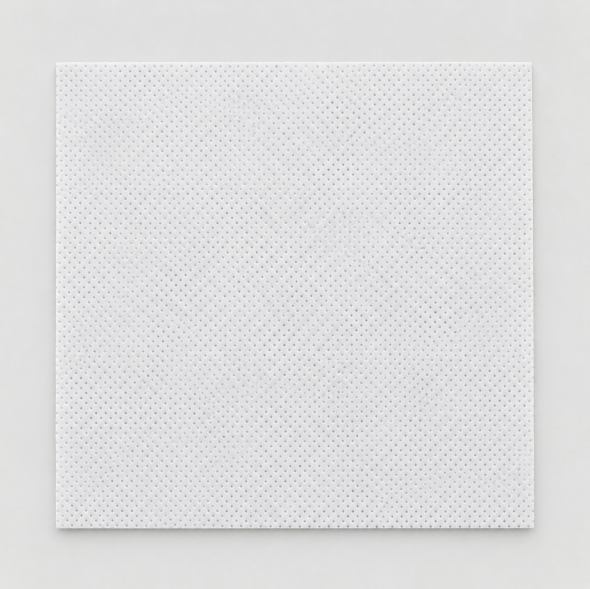
Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Outer Membrane

MOTET-0012 | Sample Illustration

Sample illustration





Reference	Colour and sides shown	Year photographed
MOTET-0012	White front / white back	2026

Outer Membrane

MOTET-0013 | Technical Data

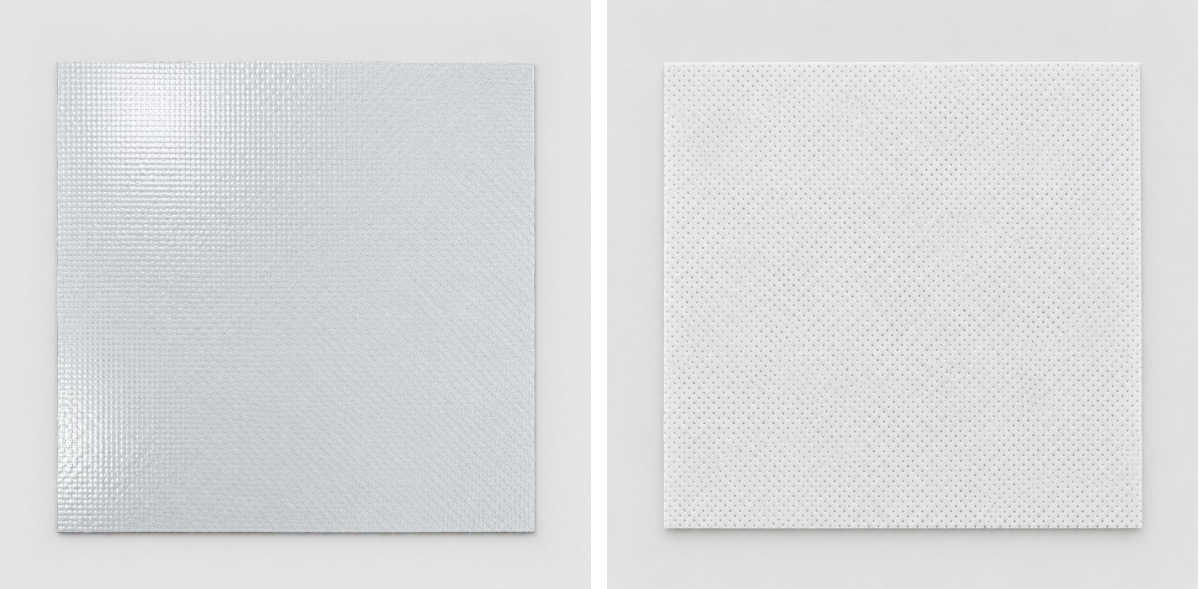
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Non-weldable super-white front finish / acrylic back
	Mass per unit area	1400 g/m²
	Tensile strength (warp / weft)	8000 / 7500 N/5 cm
	Tear resistance (warp / weft)	1300 / 1300 N
	Coating adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Outer Membrane

MOTET-0013 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0013	White front / white back	2026

Outer Membrane

MOTET-0014 | Technical Data

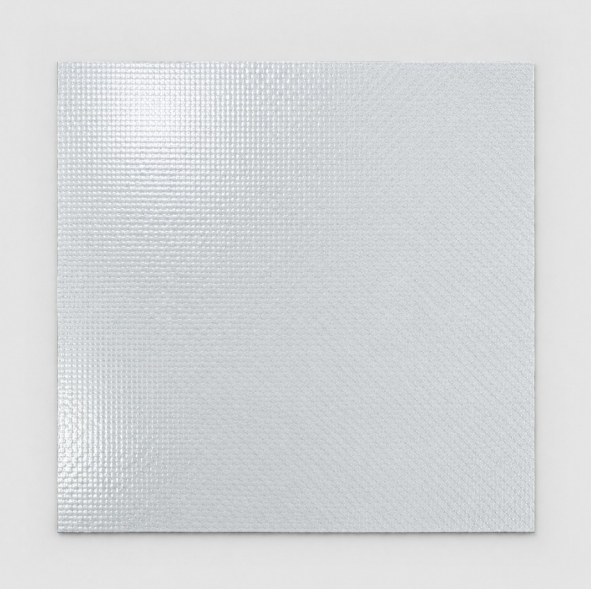
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF front / acrylic back
	Mass per unit area	Approx. 1050 g/m²
	Tensile strength (warp / weft)	5400 / 5000 N/5 cm
	Tear resistance (warp / weft)	700 / 500 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1

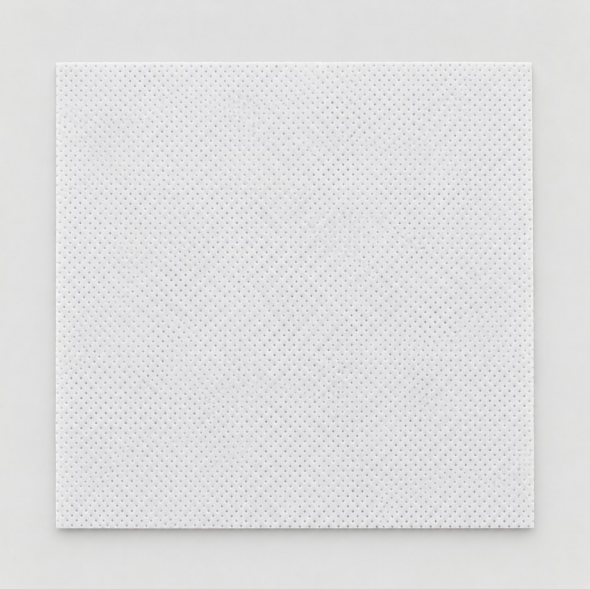
Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Outer Membrane

MOTET-0014 | Sample Illustration

Sample illustration





Reference	Colour and sides shown	Year photographed
MOTET-0014	White front / white back	2026

Outer Membrane

MOTET-0015 | Technical Data

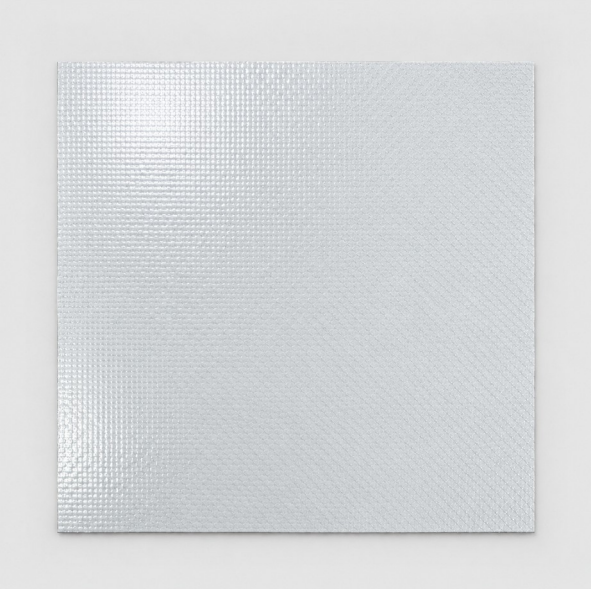
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	PVDF front / acrylic back
	Mass per unit area	Approx. 1150 g/m²
	Tensile strength (warp / weft)	6000 / 5400 N/5 cm
	Tear resistance (warp / weft)	800 / 600 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1

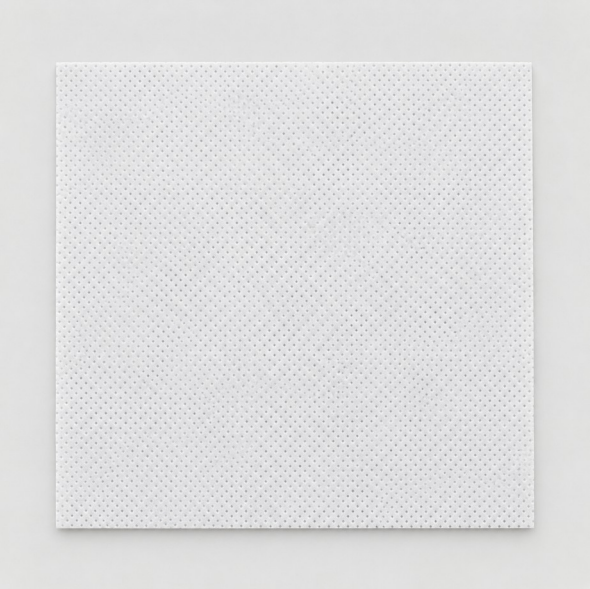
Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Outer Membrane

MOTET-0015 | Sample Illustration

Sample illustration





Reference	Colour and sides shown	Year photographed
MOTET-0015	White front / white back	2026

Outer Membrane

MOTET-0017 | Technical Data

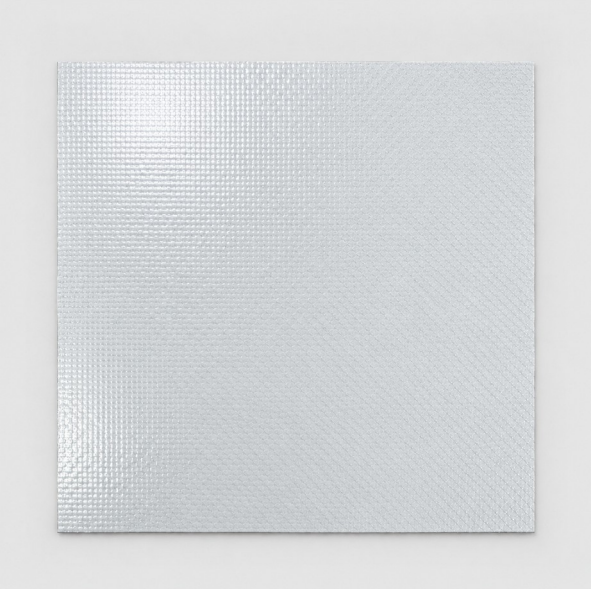
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	PVDF / high-gloss finish
	Mass per unit area	1200 g/m² ±5%
	Tensile strength (warp / weft)	≥5800 / ≥5400 N/5 cm
	Tear resistance (warp / weft)	≥900 / ≥800 N
	Coating adhesion (HF method)	≥110 N/5 cm
	Cold resistance	-30 °C
	Heat resistance	+70 °C
	Flex resistance	At least 100,000 bends
	Colour fastness to light	7-8
	Methane permeability	≤500 cm³/(m²·d·bar)
	Fire behaviour classification	DIN 4102 B1

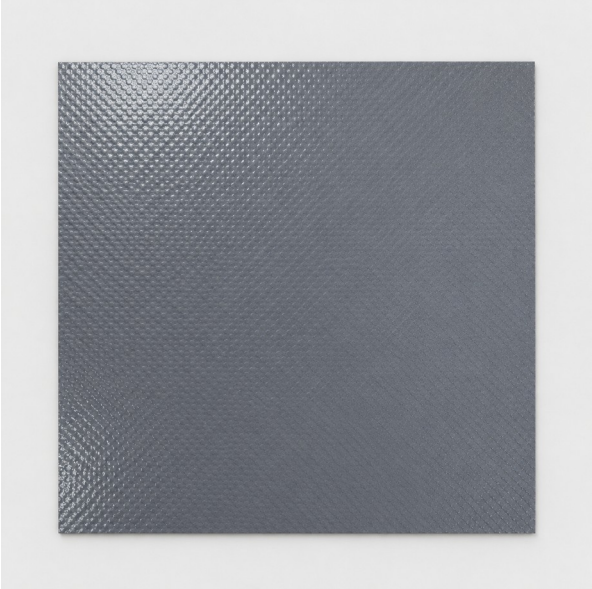
Material data compiled by MOTET; not an independent test report or whole-holder certification.

Outer Membrane

MOTET-0017 | Sample Illustration

Sample illustration





Reference	Colour and sides shown	Year photographed
MOTET-0017	One white side / one grey side	2026

Bottom Membrane

MOTET-0024 | Technical Data

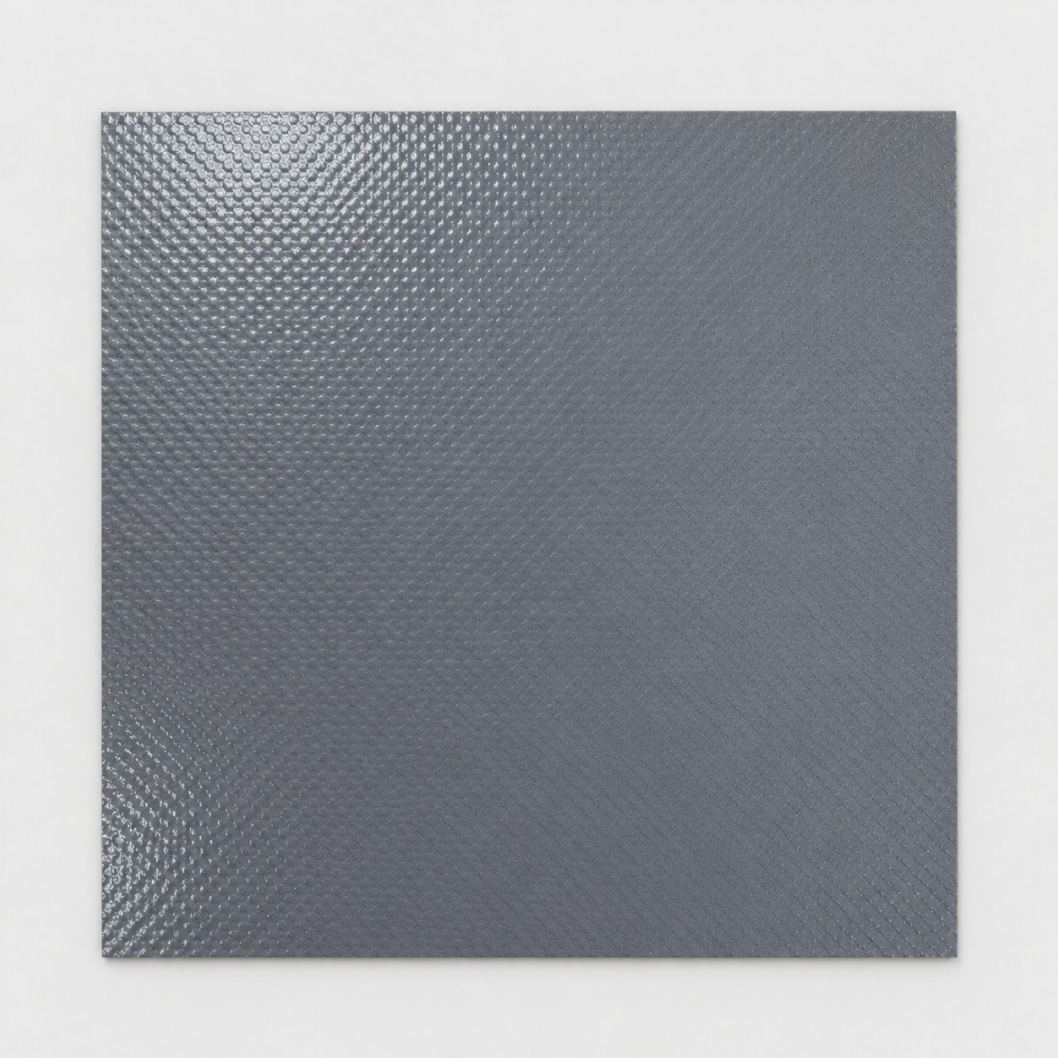
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	High-gloss acrylic finish
	Mass per unit area	900 g/m² ±5%
	Tensile strength (warp / weft)	>4000 / >4000 N/5 cm
	Tear resistance (warp / weft)	>500 / >500 N
	Coating adhesion (HF method)	>100 N/5 cm
	Cold resistance	-30 °C
	Heat resistance	+70 °C
	Flex resistance	At least 100,000 bends
	Light transmission	White approx. 12%; other colours approx. 3%
	Colour fastness to light	7-8
	Fire classification (shown on source cover)	DIN 4102 B1； EN 13501-1 B-s2,d0； NF P 92-503 M2

Material data compiled by MOTET; not an independent test report or whole-holder certification.

Bottom Membrane

MOTET-0024 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0024	Grey front / grey back	2026

Bottom Membrane

MOTET-0016 | Technical Data

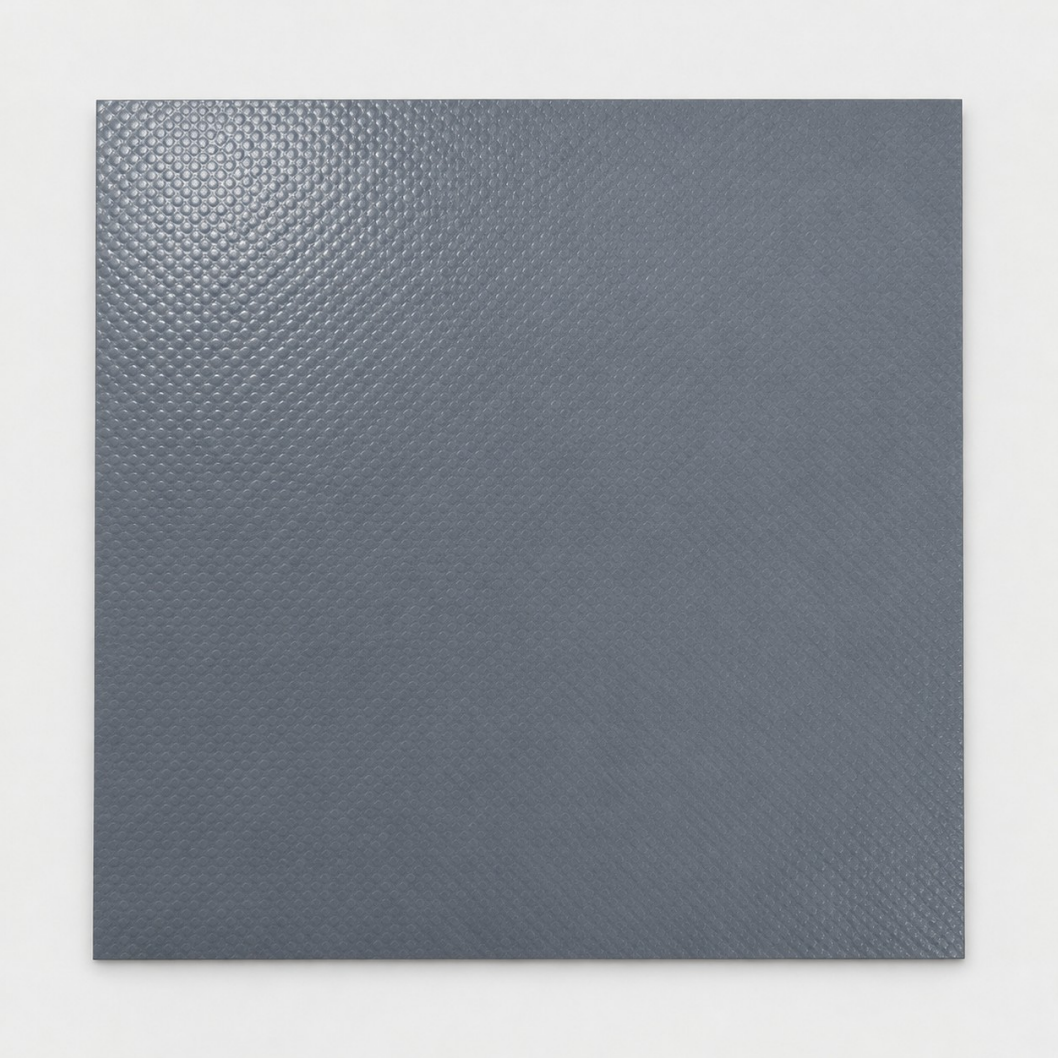
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF front / acrylic back
	Mass per unit area	Approx. 950 g/m²
	Tensile strength (warp / weft)	4200 / 3800 N/5 cm
	Tear resistance (warp / weft)	500 / 400 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends
	Fire behaviour classification	DIN 4102-1 B1

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Bottom Membrane

MOTET-0016 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0016	Grey front / grey back	2026

Bottom Membrane

MOTET-0021 | Technical Data

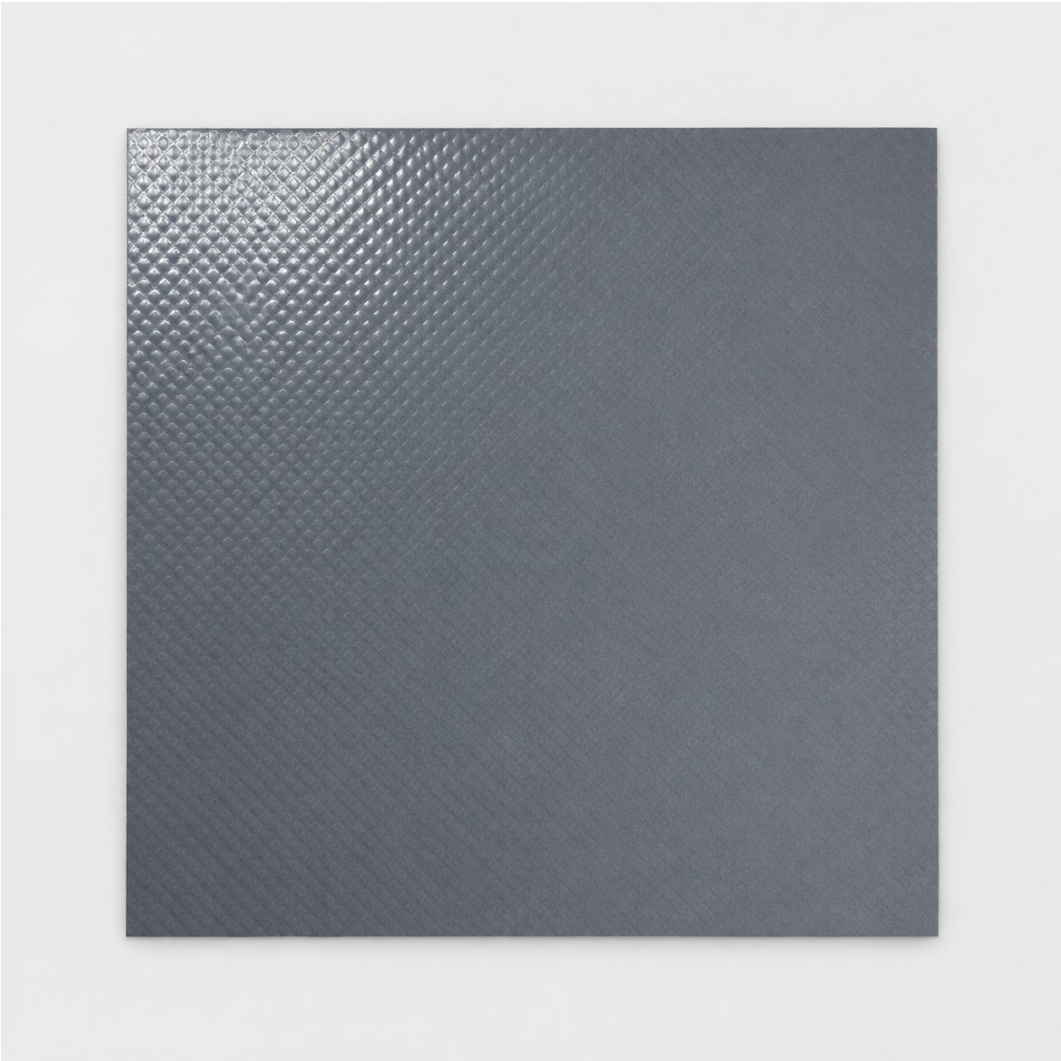
	Property	Reference value
	Base fabric	100% polyester
	Coating	PVC
	Surface finish	Weldable PVDF front / acrylic back
	Mass per unit area	Approx. 950 g/m²
	Tensile strength (warp / weft)	4200 / 4200 N/5 cm
	Tear resistance (warp / weft)	600 / 500 N
	Weld adhesion	150 N/5 cm
	Temperature resistance	-30 °C to +70 °C
	Flex resistance	At least 100,000 bends

Material data compiled by MOTET; not an independent test report or whole-holder certification. Reference values are not guaranteed minima.

Bottom Membrane

MOTET-0021 | Sample Illustration

Sample illustration



Reference	Colour and sides shown	Year photographed
MOTET-0021	Grey front / grey back	2026