This technical data refers to the following Lighthouse premium grade vinyl, W.R.A.P. and Made to Order vinyl colours used with the CPM-100, CM-200, CJ-200C and CJ Pro systems:

CPM01, CPM03, CPM05, CPM07-08, CPM12, CPM18, CPM22-24, CPM62, CPM64, CM5001, CM5011, CM5014-15, CM5082, CM5093, CM6002, CJP0101-02, CJP0104, CJP0115, CJP0301-02, CJP0304, CJP0501-02, CJP0504, CJP0701-02, CJP0704, CJP0801-02, CJP0804, CJP1201-02, CJP1204, CJP1801-02 & CJP1804

DESCRIPTION
Calendered soft vinyl film coated with a permanent acrylic adhesive.

ADHESIVE
High quality solvent based permanent acrylic adhesive.

LINER
Highly stable 135 gsm white kraft paper.

TYPICAL USES
Medium term marking film designed for outdoor applications (vehicle marking, window graphics, signs…) and for indoor applications (exhibition stands).

TECHNICAL DATA

Thickness (film only)	70 microns
Durability (vertical weathering in central European climate)	5 years: black and white 4 years: all colours
Adhesion (FTM 1) 20 min on stainless steel 1 week on stainless steel	 14 N/25mm 19 N/25mm
Dimensional stability (FTM 14) 48 H at 70°C on aluminium	 <0.3%
Minimum Application Temperature	+10°C
End Use Temperature	From -40°C to +80°C
Tensile Strength (DIN 53455-5)	>25 N/15mm
Elongation at Break (DIN 53455-5)	>150%
Shelf Life (20°C – 50% relative humidity)	2 years
Resistance To Solvents And Chemicals (applied on stainless steel 72 hours before immersion)	Water, water and detergent, alcohol: unaffected. Oil, gasoline: affected (lifting around edges).
Flammability (ISO 3795)	Self-extinguishing, applied on aluminium

IMPORTANT NOTICE
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Because of the variety of uses of Lighthouse products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. The seller shall not be liable for damages in excess of the purchase price of the product nor for incidental or consequential damages.
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This technical data refers to the following Lighthouse premium grade vinyl and Made to Order vinyl colours used with the CPM-100, CM-200, CJ-200C and CJ Pro systems:

Yellow - CPM02, CJP0215, CJP0201-02, CJP0204, CM5081
Red - CPM04, CJP0401-02, CJP0404, CM5007
Orange - CPM06, CJP0601-02, CJP0604, CM5004

DESCRIPTION
Calendered soft vinyl film coated with a permanent acrylic adhesive.

ADHESIVE
High quality solvent based permanent acrylic adhesive.

LINER
Highly stable 135 gsm white kraft paper.

TYPICAL USES
Medium term marking film designed for outdoor applications (vehicle marking, window graphics, signs…) and for indoor applications (exhibition stands).

TECHNICAL DATA

Thickness (film only)	75 microns
Durability (vertical weathering in central European climate)	3 years: all colours
Adhesion (FTM 1) 20 min on stainless steel 1 week on stainless steel	14 N/25mm 19 N/25mm
Dimensional stability (FTM 14) 48 H at 70°C on aluminium	<0.3%
Minimum Application Temperature	+10°C
End Use Temperature	From -40°C to +70°C
Tensile Strength (DIN 53455-5)	>25 N/15mm
Elongation at Break (DIN 53455-5)	>150%
Shelf Life (20°C – 50% relative humidity)	2 years
Resistance To Solvents And Chemicals (applied on stainless steel 72 hours before immersion)	Water, water and detergent, alcohol: unaffected. Oil, gasoline: affected (lifting around edges).
Flammability (ISO 3795)	Self-extinguishing, applied on aluminium

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Brown - CPM09, CM5013, CJP0901-02 & CJP0904
Beige - CPM10, CM5088, CJP1001-02 & CJP1004

DESCRIPTION
Calendered soft vinyl film coated with a permanent acrylic adhesive.

ADHESIVE
High quality permanent acrylic adhesive.

LINER
Highly stable 135 gsm white kraft paper.

TYPICAL USES
Medium term marking film designed for indoor and outdoor applications.

TECHNICAL DATA

Thickness (film only)	70 microns
Durability (vertical exposure in middle-European climate)	3 years
Adhesion (ASTMD-903) immediately after 1 week	~3.8 N/25mm ~11.3 N/25mm
Dimensional stability applied onto aluminium after 48 hours stored at 70°C (25 x 25 cm)	max. -0.5%
Minimum Application Temperature	+15°C
End Use Temperature	From -30°C to +80°C
Light Proofness (DIN 53388)	non-fade grade: 6-8 Woll- Scale
Shelf Life (the film must be stored at room temperature (15-25°C) and a relative humidity of the air of 50-60%)	Before application the film can be stored for minimum 3 years from date of production. To avoid pressure points appearing on the roll surface, we recommend the rolls be stored either vertical standing or for this purpose designed 'hanging' racks.
Resistance To Solvents And Chemicals (in a preece test of 24 hours)	The applied film is resistant to most petroleum based oils, greases and aliphatic solvents, mild acids, alkaline and salts
Combustibility	stuck on aluminium, the film is self-extinguishing

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This technical data refers to the following Lighthouse premium grade vinyl, W.R.A.P. and Made to Order vinyl colours used with the CPM-100, CM-200, CJ-200C and CJ Pro systems:

CPM11, CPM19, CPM61, CPM67, CPM69-71, CM5019, CM5022, CM5023, CM5055, CM6001, CM6004, CM6007, CM6009, CM6070-72, CJP1101, CJP1102, CJP1104, CJP1604, CJP1901, CJP1902 & CJP1904

DESCRIPTION
High performance polymeric stabilised soft vinyl coated with a durable permanent adhesive giving excellent dimensional stability, designed for trouble free computer cutting and fast weeding, even for small letters and fine lines.

ADHESIVE
High quality clear solvent based permanent acrylic adhesive.

LINER
Highly stable 135 gsm white kraft paper.

TYPICAL USES
Designed for long term interior and exterior marking applications (vehicle marking, window graphics, signs…).

TECHNICAL DATA

Thickness (film only)	66 microns
Durability (vertical weathering in central European climate)	7 years: colours 5 years: metallics
Adhesion (FTM 1) 20 min on stainless steel 1 week on stainless steel	16 N/25mm 20 N/25mm
Dimensional stability (FTM 14) 48 H at 70°C on aluminium	<0.1%
Minimum Application Temperature	+8°C
End Use Temperature	From -40°C to +90°C
Tensile Strength (DIN 53455-5)	>27 N/15mm
Elongation at Break (DIN 53455-5)	>150%
Shelf Life (20°C – 50% relative humidity)	2 years
Resistance To Solvents And Chemicals (applied on stainless steel 72 hours before immersion)	Resistant to most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Flammability (ISO 3795)	Self-extinguishing, applied on aluminium

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This technical data refers to the following Lighthouse premium grade and Made to Order vinyl used with the CPM-100 and CJ Pro systems:

Violet - CPM17, CJP1701, CJP1702, CJP1704

DESCRIPTION
High performance polymeric stabilised soft vinyl coated with a durable permanent adhesive giving excellent dimensional stability, designed for trouble free computer cutting and fast weeding, even for small letters and fine lines.

ADHESIVE
High quality clear solvent based permanent acrylic adhesive.

LINER
Highly stable 135 gsm white kraft paper.

TYPICAL USES
Designed for long term interior and exterior marking applications (vehicle marking, window graphics, signs…).

TECHNICAL DATA

Thickness (film only)	70 microns
Durability (vertical weathering in central European climate)	7 years: colours
Adhesion (FTM 1) 20 min on Glass 24Hr on Glass	15 N/25mm 20 N/25mm
Dimensional stability (FTM 14) 48 H at 70°C on aluminium	<0.1%
Minimum Application Temperature	+5°C
End Use Temperature	From -30°C to +110°C
Face Tensile Strength	47N/25mm MD / 43N/25mm TD
Elongation at Break	180% MD nominal
Shrinkage	-0.5% MD max / -0.2% TD max
Shelf Life (20°C – 50% relative humidity)	2 years
Chemical Resistance	Resistant to mineral oils, fats and fuels, aliphatic solvents, mild acids, salt and alkali for e.g. diesel oil, gasoline, paraffin, hydraulic oil, antifreeze, soap suds etc.
Fire Rating	Class B. BS EN 13501-1:2007 BS 6853:1999 Cat1a&b (Passenger Rail) EN ISO 5659-2 (Goods Rail Vehicles)

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This technical data refers to the following W.R.A.P. and Made to Order vinyl colours used with the CPM-100, CM-200 and CJ-200C systems:

CPM60, CPM63, CPM65-66, CPM68, CM6000, CM6003, CM6005, CM6006 & CM6008

DESCRIPTION

A calendered soft vinyl film, coated with a semi-permanent acrylic adhesive giving excellent dimensional stability. It can be removed, at room temperature, from the substrate without leaving adhesive residue, for periods of up to 2 years after application.

ADHESIVE

High quality solvent based semi-permanent acrylic adhesive.

LINER

Highly stable 135 gsm white kraft paper.

TYPICAL USES

Medium term marking film designed for outdoor applications (vehicle marking, window graphics, signs…) and for indoor applications (exhibition stands).

Application is possible at temperature down to 0°C.

TECHNICAL DATA

Thickness (film only)	70 microns
Durability (vertical weathering in central European climate)	4 years: black and white 3 years: all colours
Adhesion (FTM 1) 20 min on stainless steel 1 week on stainless steel	2.5 – 5.5 N/25mm 5.0 – 10 N/25mm
Dimensional stability (FTM 14) 48 H at 70°C on aluminium	<0.1%
Minimum Application Temperature	+0°C
End Use Temperature	From -40°C to +70°C
Tensile Strength (DIN 53455-5)	>25 N/15mm
Elongation at Break (DIN 53455-5)	>150%
Shelf Life (20°C – 50% relative humidity)	2 years
Resistance To Solvents And Chemicals (applied on stainless steel 72 hours before immersion)	Water, water and detergent, alcohol: unaffected. Oil, gasoline: affected (lifting around edges).
Flammability (ISO 3795)	Self-extinguishing, applied on aluminium

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