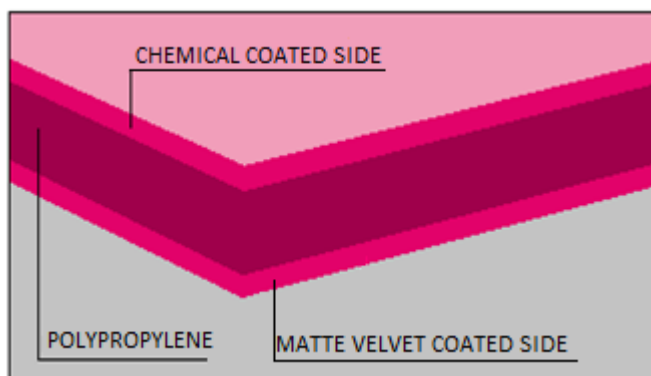


TECHNICAL DATA SHEET

K 2 1 U L T R A S O F T

K21 ULTRASOFT is a bioriented polypropylene film with one side matte and coated with a special laquer lending a velvet tactile effect; the other side is chemical coated (*outside*).

This film complies with EN-71 (declaration on request). This film is not suitable to come into direct contact with food.



TYPICAL TECHNICAL FEATURES ⁽¹⁾

| PHYSICAL PROPERTIES | | METHOD | UNIT | VALUE <i>code 172/02</i> |
|---------------------|---------------|-------------|------------------|-----------------------------|
| Thickness | | ASTM D374-C | µm | 21 ± 1,05 |
| Grammage | | Internal | g/m ² | 18,8 |
| Surface tension | chemical side | ASTM D2578 | dyne/cm | ≥ 44 |

| MECHANICAL PROPERTIES | | METHOD | UNIT | VALUE <i>Code 172/02</i> |
|---------------------------|----|-----------|--------------------|-----------------------------|
| Tensile strength at break | MD | ASTM D882 | Kg/cm ² | 800 - 1.100 |
| | TD | | | 2.100 - 2.400 |
| Elongation at break | MD | ASTM D882 | % | 135 - 175 |
| | TD | | | 20 - 60 |

| THERMAL PROPERTIES | | METHOD | UNIT | VALUE <i>code 172/02</i> |
|-----------------------------------|----|------------|------|-----------------------------|
| Thermal shrinkage (120°C/5min) | MD | ASTM D1204 | % | 2 - 4 |
| | TD | | | 1 - 2 |

| OPTICAL PROPERTIES | | METHOD | UNIT | VALUE <i>code 172/02</i> |
|---------------------|-----|------------|------|-----------------------------|
| Haze | | ASTM D1003 | % | 85 - 95 |
| Gloss (velvet side) | 45° | ASTM D2457 | GU | < 9 |

⁽¹⁾ The information and data contained herein are to be used only as a guideline; therefore, ULTRALEN FILM GmbH doesn't offer any guarantee on their absolute truthfulness and doesn't accept any liability arising out of their use.

ULTRALEN FILM GmbH

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STORAGE

Store the material in a dry location (preferably with RH < 50%) at a constant temperature between 20°C and 30°C. Do not leave it exposed to direct sunlight or atmospheric agents.

Partially used reels have to be repacked as originally supplied.

WARRANTY

Material processability is guaranteed up to 3 months since shipment date, as long as it is stored correctly. It is recommended to condition the material at room temperature at least 24 hours before its use.

DISCLAIMERS

ULTRALEN FILM GmbH gives no warranty, expressed or implied, as to the suitability of the material for a specific application or characteristic use. An industrial homologation test of the material in actual conditions of purpose is always needed in order to verify its suitability for the specific application or characteristic use. Before using the material, it is advisable to check the compatibility of the inks and adhesives to be purposed with the type and level of its treatment.

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