

1. Purpose

This document specifies the material structure of transparent Wheylayer barrier laminate for thermoforming applications.

2. Name and code of the material

Name of material: **Transparent Wheylayer Laminate**
 Internal code: **WL1-PVC**
 Technical name: **PVC-Whey-PVC 514 µm Transparent**

3. Material specification (from outside to inside)

		Thickness	Tolerance	Density
PVC	transparent	250 µm	± 10 %	1.36 g/cm ³
Wheylayer ^(R) Coating	Transparent	5	± 10 %	1.40 g/cm ³
Adhesive	transparent	4 µm	± 20 %	
Wheylayer ^(R) Coating	transparent	5 µm	± 10 %	1.40 g/cm ³
PVC	transparent	250 µm	± 10 %	1.36 g/cm ³

Total thickness 514 µm ± 10 %

4. Material properties:

Optical properties:

Transparent

Surface pre-treatment

Inside and outside of laminate > 32 mN/m
 In accordance to DIN ISO 8296

Barrier properties:

OTR ≤ 6.3 cc/(m² d bar) (23°C, 50% RH) in accordance to DIN ISO 53380 T3
 WVTR < 0.7 g/ (m² d) (23°C, 85--> 0%) in accordance to DIN ISO 15106-3

5. General conditions

We guarantee a constantly high quality of our laminate over a period of 6 months after manufacture date, provided that the laminate is stored in normal temperature conditions (> 15° C and < 28° C), in a place which has a humidity of 40-60% and which is protected against direct sunlight, in clean place free of contamination and in its original transport packaging.

If these storage conditions are not applied by the customer, we cannot accept any liability for a loss in the tube's original quality, resulting processing problems during filling as well as a possibly reduced shelf life of the packed product.

Please consult us for availability of different laminate structures, thickness, barrier properties levels and colours.

	Prepared	Reviewed	Approved
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Date	22.04.2014	15.06.2014	15.07.2014
Signature			