

# RESOPAL® COMPACT COLOUR

## TECHNICAL DATA SHEET

### 1. MATERIAL DESCRIPTION AND COMPOSITION

RESOPAL Compact Colour is a decorative high pressure laminate (HPL) with coloured core. Typical applications are in the area of interior fittings.

#### 1.1 Core

##### 1.1.1 Melamine impregnated core

RESOPAL Compact Colour (type BCS) fulfills all the requirements of DIN EN 438 - part 9 „classification and specifications- for alternative core laminates“. RESOPAL Compact Colour consist of throughout colored core. The buildup of such boards consists of desired solid decor impregnated with melamine resin for core construction and laminated with high pressure with the desired decorative paper for the top and bottom surface. As the result this product is throughout impregnated with melamine resin in comparison with the traditional black core which the construction of the core is standard craft paper impregnated with phenolic resin.

##### 1.1.2 Phenolic impregnated core

RESOPAL Compact Colour (type CGS) fulfills all the requirements of DIN EN 438 - part 4 „classification and specifications of compact laminates with thickness 2 mm and greater“. RESOPAL Compact Colour (type CGS) consist of throughout black core. The buildup of such boards consists of phenolic resin treated kraft-paper for core in addition laminated with high pressure with the desired decorative paper for the top and bottom surface. Based on the usage of Phenolic resin for core construction the core will demonstrate black throughout colored core

#### 1.2 Decorative Surface

##### 1.2.1 Melamine surface

The textures #60 - matte, RM Real Material - matte, irregular stone structure and WH Wooden Heart - matte vertical wood stripe are typically treated with melamine-formaldehyde resin surfaces.

##### 1.2.2 Traceless Premium (TP)

The texture RESOPAL Traceless Premium has an anti-fingerprint, satin-finished, which has low-reflection and soft-touch surface and is intended for use in interior application.

### 2. TECHNICAL DATA

Technical characteristics (RESOPAL Compact Colour 10 and 12 mm)

CHARACTERISTICS	TEST METHOD	UNIT	BCS	CGS
<b>PHYSICAL AND DIMENSIONAL PROPERTIES</b>				
Density	ISO 1183	g/cm <sup>3</sup>	≥ 1.4	≥ 1.35
Thickness tolerance	EN 438-2-5	mm	10 mm: ±0.7 / 12 mm: ±0.8	10 mm: ±0.5 / 12 mm: ±0.6
Length and width tolerance	EN 438-2-6	mm		+10 / -0
Straightness tolerance	EN 438-2-7	mm/m		≤ 1.5
Squareness tolerance	EN 438-2-8	mm/m		≤ 1.5
Flatness tolerance	EN 438-2-9	mm/m	≤ 5	≤ 3
Dimensional stability at high temperature				
Longitudinal	DIN EN 438-2-17	%	≤ 0.5	≤ 0.3
Transverse		%	≤ 0.8	≤ 0.6

CHARACTERISTICS	TEST METHOD	UNIT	BCS	CGS
<b>MECHANICAL PROPERTIES</b>				
Tensile strength longitudinal / transverse	EN ISO 178	MPa		≥ 80
Modulus of elasticity longitudinal / transverse	EN ISO 178	MPa		≥ 9000
Resistance to boiling water				
Mass increase	EN 438-2-12	%	≤ 3	≤ 2
Thickness increase		%	≤ 4	≤ 2
Appearance SURFACE		rating	≥ 4	≥ 4
Appearance CORE		rating	≥ 3	≥ 3
Resistance to impact by large diameter ball drop height	EN 438-2-21	mm	-	≥ 1800
Resistance to crazing	EN 438-2-24			
Appearance SURFACE		rating	≥ 4	≥ 4
Appearance CORE		rating	≥ 3	≥ 4
<b>SURFACE PROPERTIES</b>				
Surface defects	EN 438-2-4			
Spots		mm <sup>2</sup> /m <sup>2</sup>		≤ 1
Linear		mm/m <sup>2</sup>		≤ 10
Abrasion resistance	EN 438-2-10	Revolutions		≥ 150
Resistance to water vapour	EN 438-2-14	Rating		others: ≥ 4 / TP: ≥ 4
Resistance to dry heat	EN 438-2-16	Rating		others: ≥ 4 / TP: 4
Scratch resistance	EN 438-2-25	Rating		andere: ≥ 3 / TP: 4
Stain resistance	EN 438-2-26			
Group 1 & 2		Rating		others: ≥ 5 / TP: ≥ 5*
Group 3				others: ≥ 4 / TP: ≥ 4
Light fastness	EN 438-2-27			
Appearance SURFACE		Grey scale	≥ 4-5	≥ 4-5
Appearance CORE			≥ 3	-
<b>FIRE PERFORMANCE</b>				
Fire rating	EN 13501-1	Euro class	others ≥ 10 mm: B-s2,d0 TP: no classification	others ≥ 10 mm: C-s2,d0 TP: no classification
<b>HEALTH AND ENVIRONMENTAL CHARACTERISTICS</b>				
Food contact				Yes
Formaldehyde emission	EN 717-2	Classification		E1
PEFC/ FSC®				FSC® Controlled Wood

\*A longer exposure time of hot liquids (tea, coffee, etc.) can lead to slight stains on light surfaces.

To avoid any aesthetic damages on the surface, we highly recommend that all stains to be cleaned immediately. In the case of stains remaining from the surface, it's possible to clean the surface with a Duraform sponge „Magic Eraser“.

TP = Traceless Premium

Rating 5: No visible change

Rating 4: Slight change

Rating 3: Moderate change

Rating 2: Marked change

Rating 1: Strong change

BCS: B (Coloured core layer laminate), C (Compact grade), S (Standard grade)

CGS: C (Compact grade), G (general purpose), S (Standard grade)

### 3. STORAGE AND TRANSPORT

RESOPAL Compact Colour must be stored in an enclosed storage area at standard interior room conditions (18-25°C and 50-65% relative humidity). In addition, RESOPAL Compact Colour must be protected from moisture and mechanical damage. Stacked boards must be stored on their full surface, with flushed edges, and horizontally supported on a flat surface, and support covered with plastic film. The top board of each stack must also be covered with a plastic film and weighted down by a protective board.

Please note, after each board removal from the stack, users must ensure that mentioned storage conditions are maintained at all time. Moreover, incase RESOPAL Compact Colour are not stored flat over an extended period of time, distortions such as bending and warpage may occur.

RESOPAL Compact Colour must be transported on a horizontal, flat, level and sufficiently large base (e.g. pallet) with protection against slipping. In addition, the RESOPAL Compact Colour must be protected from moisture and mechanical damage. In terms of transportation conditions RESOPAL Compact Colour are not considered to be dangerous goods, therefore, labelling is not necessary.

### 4. HANDLING AND MACHINING OF RESOPAL® COMPACT COLOUR

The usual safety requirements of fabrication and machining should be observed with regard to dust extraction, dust collection and fire precautions. Due to the possibility of sharp edges protective gloves should always be worn when handling laminates. The contact with dust from RESOPAL® Compact Colour does not present any specific issue, however, some individual may be sensitive or even allergic to machining dust in general.

#### 4.1 Conditioning

Before installing, RESOPAL Compact Colour must be laid on an even surface and acclimatized under the following conditions for at least 5 days (8 - 10 days in winter) in the designated installation room. Room climate should be normal room temperature (temperature: 18 to 25 °C; relative humidity: 50 to 65%). These climatic conditions should also be maintained room temperature at all time, even after installation is completed.

Due to the material composition, RESOPAL Compact Color (BCS) with melamine impregnated core reacts more aggressive to environmental change. Moreover, extreme climate/temperaturer difference from the front and back side may also results in unwanted warpage. In general this material is quite sensitive to climatic changes and to ensure board flatness all required parameter must be followed. Described material is therefore not suitable for areas subjected to major climatic variations with extreme temperature and humidity.

Furthermore, direct heat effects and dehydration due to heat or air flows from heating and air conditioning systems must be avoided.

RESOPAL Compact Colour (CGS) with phenolic impregnated core behaves in the same way as RESOPAL Compact in case of climatic changes, so that the general handling processing guidelines of RESOPAL Compact must be followed.

#### 4.2 Technical application information

In comparison to the standard buildup, due to the exclusive use of melmaine resin, the RESOPAL Compact Colour panels (type BCS) are marginally harder and slightly more brittle. To some extent this can lead to increased tool wear when machining RESOPAL Compact Colour (type BCS).

When RESOPAL Compact Colour is installed in combination with standard RESOPAL HPL / Compact containing phenolic brown core checks may have to be performed to assure the possible of colour deviation between the two products. This is to assure that product lies within the desired specifications.

The appearance and the quality of the edge (Schmalfläche) depend on the processing. Depending on the quality of the processing, slight streaking on the edge may occur. It is therefore recommended to sand the milled edges afterwards. Additional polishing can significantly improve the appearance and quality of the edge. For this, the processing recommendations of RESOPAL Compact Color and the tool recommendation of LEUCO Ledermann GmbH & Co. KG should be followed. Depending on the milling angle, a differently colored layer may become visible in the case of printed decors when beveling or chamfering the narrow surface. Please note, the larger the milling angle, the more visible the color variations between the layers may occur.

In addition, the "general handling and processing guidelines for RESOPAL Compact" regarding storage and processing have to be followed when working with RESOPAL Compact Colour. RESOPAL Compact Colour is not postformable.

## 5. AVAILABLE PRODUCTS

Sizes:	3050 x 1320 mm 3650 x 1320 mm
Thicknesses:	10 mm / 12 mm
Textures:	3050x1320: 60, TP, WH, RM 3650x1320: 60, TP
Decors:	see RESOPAL Compact Colour Collection
Cores:	Cool White, Cool Grey, Light Brown, Deep Black

## 6. MAINTENANCE, CARE AND CLEANING

RESOPAL Compact Colour is not affected by corrosion and oxidation, therefore, the boards do not need any further surface protection (laquers or paints). All decorative RESOPAL Compact Colour surfaces can be cleaned with soft soap. Hard contaminations are usually can be removed by solvents. Use of abrasive agents is not recommended (e.g. scouring powder).

A longer exposure time of hot liquids (tea, coffee, etc.) can lead to slight stains on light RESOPAL Traceless Premium surfaces.

To avoid all aesthetic damages, we recommend to clean all stains immediately. In case of remaining stains, it's possible to clean them with a gummy sponge.

For further information follow the instructions in the Datasheets "Cleaning and maintaining of RESOPAL HPL" and "Cleaning and maintaining of RESOPAL Traceless Premium".

## 7. ENVIRONMENTAL AND HEALTH ASPECTS IN USE

Decorative laminates are cured and therefore chemically inert. RESOPAL Compact Colour formaldehyde emission level is far below the limit for wood based materials. There is no migration affecting food. Consequently, RESOPAL Compact Colour is approved for contact with food. The decorative surfaces are resistant to common household solvents and chemicals and have therefore been used for many years in applications where cleanliness and hygiene are important. The non-porous RESOPAL Compact Colour surface and edges are easy to disinfect with hot water, steam and all types of disinfectants used in hospitals and other commercial facilities.

RESOPAL Compact Colour is classified as a non-hazardous product; therefore a safety datasheet is not required.

## 8. WASTE DISPOSAL AND ENERGY RECOVERY

RESOPAL Compact Colour can be brought to controlled waste disposal sites according to current national and/or regional regulations.

On account of their high calorific value (18 - 20 MJ/kg)\*1 RESOPAL Compact Colour are ideal for thermal recycling. Product could be burnt completely at 700 °C, producing water, carbon dioxide and oxides of nitrogen. Therefore RESOPAL Compact Colour comply e. g. with paragraph 8 of the economic law of circular flow (Kreislaufwirtschaftsgesetz). Well controlled burning processes are achieved in modern, officially approved industrial incinerators. Ashes of this process can be easily disposed at controlled waste disposal sites.

All the information given in this product data sheet is based on current scientific knowledge but cannot be warranted. Suitability for specific purposes or applications cannot be guaranteed.