

Surface treatment (finishing) of cement-bonded particleboard of type CETRIS®

When finishing cement-bonded particleboard of type CETRIS®, the following basic rules should be observed:

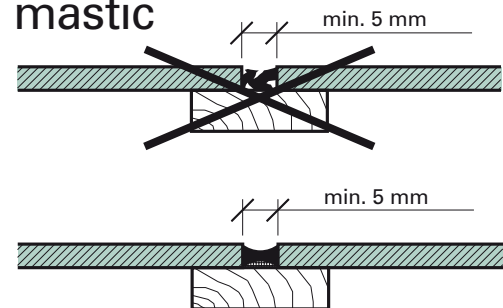
- all materials used must be stable in alkaline environment
- before applying paints, glues or fillers to CETRIS® boards, the boards have to be primed using a primer destined for absorbent surface
- observe the application manuals supplied by the producer of finishing material and apply the finishing material on a dry CETRIS® board surface
- for finishing use permanently elastic material instead of hard materials, which are not suitable for finishing
- the dilatation joints between the boards can be provided with lathes or they can be filled up with permanently elastic mastic (acrylic, polyurethane)

6.1 Filling up of joints with permanently elastic mastic

At use of CETRIS® boards for covering (lining) of walls, partitions and lower ceilings it necessary to let dilate the board with at least 5 mm wide joint. The joint can be covered with a lath, a wooden, metal or metal sheet profile can be inserted or the joint can be filled up with permanent mastic. The recommended mastics are based on acrylic resin or polyurethane. Silicon mastic can be applied to metallic material with acidic pH, what is not the case of CETRIS® boards. When still silicon mastic should be used, the connection surfaces have

to be treated with appropriate penetration.

The basic principle for correct function of a dilatation joint is the elimination of three sided adhesion in the joint, which is the reason of unequal straining of elastic filling and this causes often its unsticking from the sides of the joint. Prevention to this is the insertion of sliding insert – a polyethylene belt or strand. This way the elastic material sticks to the opposite sides (the edges of CETRIS® boards) only and it results in equal straining of the filling – so called “chewing gum effect”.



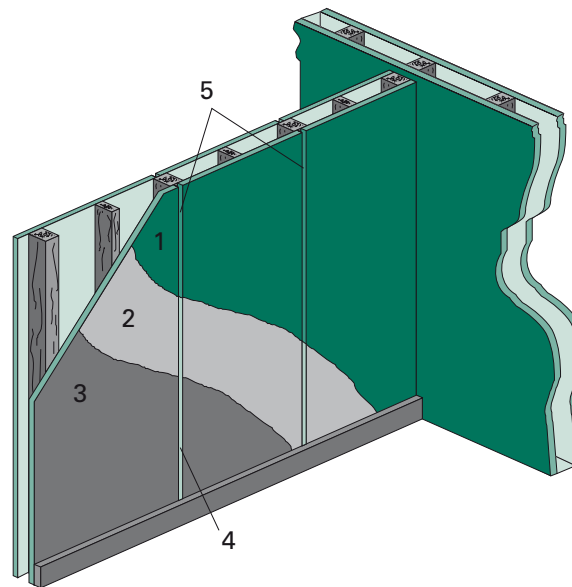
The recommended mastic for filling of joints:

Description	Vlastnosti	Použití	Pracovní postup	Výrobce
Den Braven Zwaluw Polyurethane-15 LM (Nr. 4.20)	Polyurethane mastic Color: white, gray	For cementing of dilatation and structural joints in civil engineering and machine engineering, cementing of sandwich panels, dilatation joints of industrial and living containers, caravans, gluing of aprons, cementing of plastic window and door frames		Den Braven Sealants www.denbraven.nl
Den Braven Zwaluw Elast-O-Rub (Nr. 3.15)	Acrylic mastic. Color: white, gray. Single component sealing and pointing mastic. It creates a solid, elastic connection. Can be painted. High adhesion, can be painted with acrylic and dispersive paints. It is weather resistant, including UV radiation after hardening. Maximal allowed deformation: 15 %.			Den Braven Sealants www.denbraven.nl
Soudaflex 14 LM	Color: white, concrete gray, brown. Single component elastic low modulus mastic on polyurethane base. After hardening permanently elastic, max. allowed deformation 25 %. The drying of the paint can be slowed down when painting with oxidizing paints.	Cementing of joints with significant movement in contact place. Joint width 5 to 30 mm	The surface has to be clear, dry, and solid, without fat and oils. It is recommended to paint the base with ground paint – Primer 100.	SOUDAL www.soudal.com
MAPEFLEX AC4	Color: white, gray. Single component cementing material on acrylic resin base. Water and airtight, permanently elastic jointing material.	Filling up of joints with possible movement, maximal 15 – 20 %. Joint width 5 to 30 mm.	The surface has to be clear, dry, and solid, without fat and oils.	MAPEI www.mapei.it
Dexaflam – R	Color: white. Single component elastic mastic.	Cementing of board joints, good fire resistance properties. Joint width 5 to 20 mm.	The surface has to be clear, dry, and solid, without fat and oils. We recommend treating the base with thinned mastic.	TORA Spytihněv GmbH www.torasro.cz

6.2 Paints

The painting of CETRIS® boards is the simplest surface treatment. At application of surface treatment it is necessary to observe the following rules:

- the CETRIS® board has to be treated with first coat (stabilization of the surface, decreasing of absorbing power, unifying of the base)
- as upper paint it is necessary to use paints, which are by the producers recommended for cement type base
- the composition of products should form an integral system and the prescribed technological method (method of application, technological breaks) has to be observed
- the pigments contained in the paints have to be stable in alkaline environment. Unstable pigments can cause changes in color shades.
- the surface of CETRIS® boards has to be dry, clean, without fat and oil
- lime paints are not suitable
- when the joints of CETRIS® boards are visible, the board edges have to be treated with the same composition of paints.



From esthetic point of view CETRIS® boards with chamfered edges can be used. If the customer wishes a surface treatment of CETRIS® boards for to achieve invisible joints, a full area surface filling is necessary.

- 1 cement-bonded particleboard of type CETRIS®
- 2 first coat
- 3 final paint
- 4 permanently elastic non hardening mastic
- 5 dilatation joint

Recommended paint systems for colored surface treatment of CETRIS® boards

First coat	Final coat	Producer, contact address
HC-4 With water thinned first coat	GAMADEKOR (F, FS, FS1, SIL, SA) With water thinned final coating composition	Stomix Žulová GmbH, www.stomix.cz
Quarzgrund Resine type filling base	TEX Egalisationsfarbe Water repellent highly permeable facade coating	Tex-Color Farbwerke GmbH, www.texcolor.de
Sto Prim Concentrat Penetration concentrate	Sto Color Royal Matt facade paint on acrylic base	STO AG, www.sto.de
Funcosil Hydro-Tiefengrund – With water thinned penetration mean with deep penetration	Funcosil Betonacryl – Carbonization preventing acrylic paint for surface from concrete	REMMERS, www.remmers.de
PEN-FIX – With water thinned penetration coating composition, of light white color	ELASTACRYL SATIN – With water thinned facade, matt facade coating composition	TOLLENS, www.tollens.com
FANO Facade impregnation	RENOFAS J Fine-grained final coating	CHEMOLAK
KEIM Silangrund – Water repellent penetration composition on silane base	KEIM Granital (Grob) Homogenized paint on silicate base	KEIMFARBEN GmbH & Co. KG www.keimfarben.de
REMCOLOR IMPRÄGNIERUNG "W" First coat	REMCOLOR FASSADENFARBE – With water thinned dispersive paint for exterior use	deREM GmbH Lackchemie, www.de-rem.de

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Recommended paint systems for transparent surface treatment of CETRIS® boards

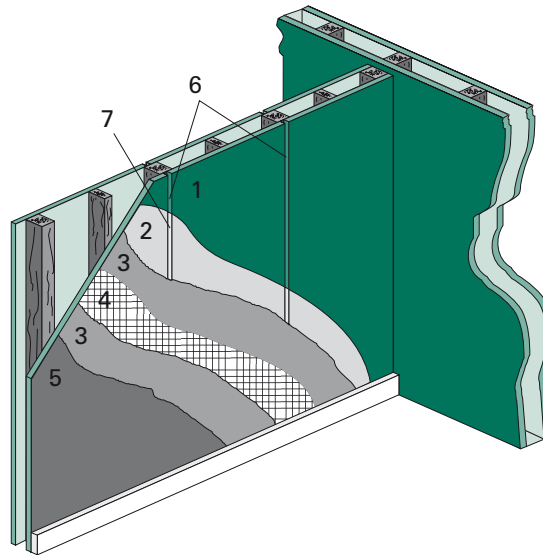
Paint	Producer
EH With water thinned penetration coating composition	STOMIX
Ispo Hydrophobierung LF Water repellent deep penetration coat	DYCKERHOFF
TOLLENS Hydrofuge Incolore Watertight composition on silicon oil base	TOLLENS

6.3 Plasters in interior

With application of plaster a surface treatment with invisible joints will be achieved.

The CETRIS® boards have to be treated with penetration coat first and the joints have to be filled up with permanently elastic mastic. Then a full area surface filling follows, into which a bandage tissue containing fiberglass is impressed. Next, another layer of filler is spread on to level and smooths the surface and finally, a layer of upper finish is applied.

It is strongly recommended to use always a complete system from a single supplier of finishing materials and the instructions of the supplier have to be observed when working with the system.



- 1 cement-bonded particleboard of type CETRIS®
- 2 first coat
- 3 filling material
- 4 bandage tissue
- 5 plaster
- 6 dilatation joint
- 7 permanently elastic non hardening mastic

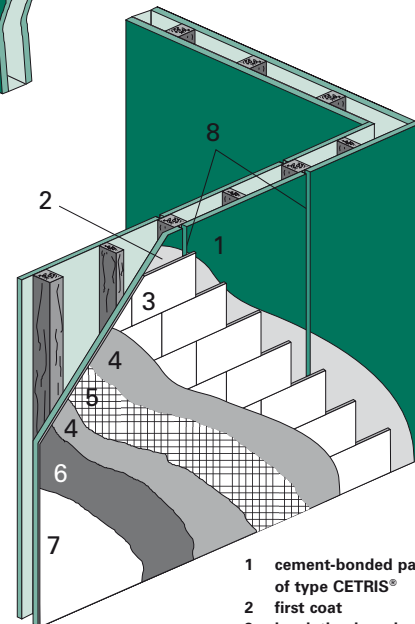
6.4 Plasters in exterior

With application of plaster a surface treatment with invisible joints will be achieved.

The CETRIS® boards contract and expand permanently as a result of dilatation from changing moisture. To prevent the breaking of facade plaster layer by hair splits due to such changes, an insulation board (polystyrene, mineral wool) of a minimal thickness of 30 mm, has to be glued, eventually mechanically anchored on the CETRIS® board. The insulation creates a separating layer, on which the other layers, as at contact thermal barriers – e.g. mastic, bandage, noble plaster are applied. A pen-

etration should be applied on the cement-bonded particleboard of type CETRIS® in this case only, it is not necessary to fill up the joint here. The insulating board (polystyrene, mineral wool) has to be glued on with covered joints between the CETRIS® cement-bonded particleboards.

Then a full area surface filling follows, into which a bandage tissue containing fiberglass is impressed. Next, another layer of filler is spread on to level and smooths the surface and finally, a layer of upper finish is applied.



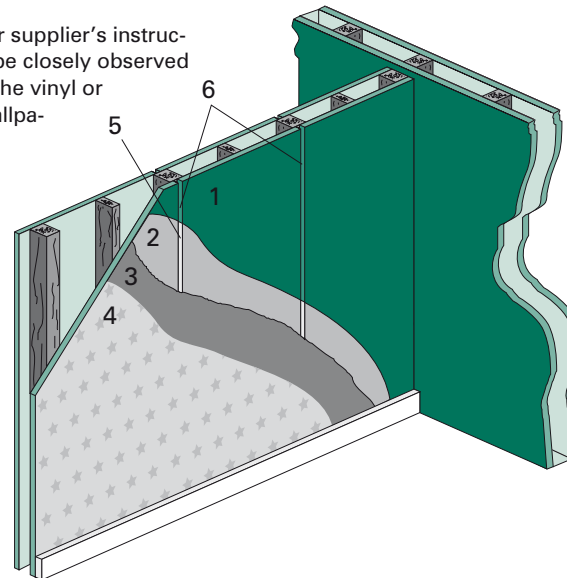
- 1 cement-bonded particleboard of type CETRIS®
- 2 first coat
- 3 insulation board
- 4 filling material
- 5 bandage tissue
- 6 penetration
- 7 plaster
- 8 dilatation joint

6.5 Wallpaper

With vinyl or glass-fiber wallpaper wall finish without visible joints can be achieved in the interior. Simple paper made wallpaper can not be used.

The cement-bonded particleboard of type CETRIS® should be first primed, then the joints filled with permanently elastic filler and the wallpaper is then glued on using wallpaper glue. Additional paint layers can be put on the glass-fiber wallpaper. Vinyl wallpaper is destined to form a wall finish, with higher degree of esthetical appearance, washability and abrasion resistance.

The wallpaper supplier's instructions should be closely observed when gluing the vinyl or glass-fiber wallpaper.



- 1 cement-bonded particleboard of type CETRIS®
- 2 first coat
- 3 wallpaper glue
- 4 wallpaper
- 5 permanently elastic non hardening filling mastic
- 6 dilatation joint