

## Vieujot Heritage Juss specifications for exterior plastering in GCC

### 1. DESCRIPTION OF THE PROCESS

#### **1.1. Principle**

System intended to carry out exterior wall plastering with a plaster coating to apply directly on the load-bearing wall, or after a prime rough-trimming. The principal component is a coarse exterior-quality gypsum plaster, with or without sand, tinted in the mass or not. This system is suitable for GCC area.

#### **1.2 Field of application**

Vieujot Heritage Juss are intended for the direct rough-casting of the building fabric. In particular, they cannot be employed in insulation systems assured from the exterior, nor can they be supported by secondary structures independent of the building frame. They cannot be employed with a final thickness inferior to 25 mm.

#### **1.3 Constitution of the system**

Vieujot Heritage Juss are mixtures of "coarse" exterior-quality gypsum plasters, with adjuvants, with or without aggregate loads, tinted or not.

## 2. IMPLEMENTATION

### **2.1. Selection of the Vieujot Heritage Juss to be used**

The first choice relates to the proportion of gypsum plaster and lime. By default, the proportion of lime, compared to the mix lime and gypsum plaster, will be 5 to 15 %. According to analyses made in our facility, and to countertype an already existing coating, it is possible to vary the proportion of lime, provided that the latter remains ranging between 0 % and 40 %, in weight. In addition, one will choose the pigment and the loads necessary to obtain the color and the desired grain. This choice must be validated by the building owner or his representative.

### **2.2 Preliminary works**

#### ***2.2.1 The zero state***

One calls “Zero state” the state of the support obtained after the following works:

The support must be purged of all its unhealthy or “loose” parts. In general, it must also be cleaned of any possible layer (for example paint, stains or finishing mortar), by scraping or scouring.

Moreover, it is advisable to observe particular precautions in the following cases:

*Old coatings* : purge all the surface of the current coatings and the totality of non-adherent parts in order to leave a coat thickness of at least 25 mm. Usually in fact, one pickaxes on the totality of the coat thickness until the support is reached. The remaining parts must be healthy, adherent and dust-free. Joints: purge the totality of non-adherent joints (but one leaves those which are healthy). In this case, the minimal digging depth is then of 1 cm. Moreover, it is advisable to purge all non-conform joints (in particular joints made in hydraulic products: cement, hydraulic lime,...).

*Stringcourse and cornice* : at least, purging of the parts in bad condition or loose.

*Brand new supports* : elements made out of hydraulic materials, whether they are prefabricated or built, must have undergone a wet cure for 30 days . In the same way, the possible mortars for rough-casting or finishing containing hydraulic binders must have undergone a 30 days wet cure. This provision applies in particular to concrete walls poured on site, to walls in blocks to be built with a binder or a glue containing a hydraulic binder (terra cotta, cement agglomerate , gas concrete, composite bearing blocks, etc...).

*Prefabricated elements made out of hydraulic materials (stringcourses, cornices, balusters, supports,...)* : they must have undergone for 30 days a wet cure before being brought to be in relation to the Vieujot Heritage Juss and that being by contact, streaming or capillarity. Once this preparation carried out, an attentive examination of the support makes it possible to check that there is not any suspect traces without explanation: traces of bistres, saltpeter (potassium nitrate) or other salts resurgence, transversal cracks, tarring, etc...

### ***2.2.2 Preparation of the supports***

*Mending of wire-meshes and rejoining of the supports if necessary* : one uses the same technique and same materials than that pertaining to the wall. The state to be obtained obeys the same rules as “state zero”.

*Stone* : if surface of insufficient quality (crumbling,...), and only in this case, consolidation with PétraMinéral. It is then necessary to let solvents evaporate at least a week (more in winter) before covering this stone.

*Brick* : if surface of insufficient quality (powdering,...), and only in this case, consolidation with PétraMinéral. It is then necessary to let solvents evaporate at least for a week (more in winter) before covering this brick.

*Gas concrete*: abundantly wet the support.

*Irons / metals* : proceed with a scouring and passivate. Stuffing with plaster lime. Setting out of galvanized wire-lath.

*Wood* : carry out an inspection and a purge: any beam presenting a deterioration will have to be uncovered on all the affected zone at least 20 cm on both sides; in the case of discovery of a cubic or fibrous rot, warn the project architect / foreman, in writing, of the possibility of a later recontamination by the mûre mushroom (*serpula lacrymans*; schum); removal and possible replacement; at least, brushing and fungicidal treatment. For this treatment, it is then necessary to let solvents evaporate at least for a week (more in winter) before covering it. One fills in Vieujot Heritage Juss. One poses a galvanized metal or fiber - epoxy lath (square wire-mesh or metal expanded without kraft paper) with galva points (alternatively one can lard the wood of large nails), then one then applies a coating of Vieujot Heritage Juss mixed tight (with little water) on the wood, on a thickness of at least 1 cm. It is excluded to put a bituminized felt or of any other processes prohibiting the drainage of water possibly present at the level of the wood frame.

*Bistre stains* : installation of a bituminized felt (no glass cloth), then a wire-mesh.

*Form-panelled, smooth blocks or cast concrete* : a cement/sand scratch coat with rough finish is applied. The hardening delay is minimum 28 days (for complete cement setting).

*Heterogeneities of the support* : installation of a galvanized or epoxy-coated wire-mesh (galvanized points), with a 15 cm overlap on both sides of the changing material. On the other hand, one should never bridge an expansion joint. In the event of setting a wire-mesh all over, the overlapping of the wire-mesh edges is then 15 cm.

#### ***Particular case of the buttering and coating stones with tops remaining visible***

*Timber structure* : repair or possible replacement; as a minimum, brushing and fungicidal treatment.

*Irons/ metals* : proceed with a scouring and passivate.

*Mending of the support meshes if necessary* : one uses the same technique and same materials than that pertaining to the wall. The state to be obtained obeys the same rules as “state zero”.

*Stone or brick* : if surface is of insufficient quality (crumbling,...), buttering stones with heads remaining visible is proscribed, and a coating is to be envisaged (in this case, cf supra).

### ***2.2.3 Rough-trimming***

If the coat thickness to be applied is higher than 3,5 cm, and only in this case, it is possible to carry out a rough-floating. One will use obligatorily the following products, on a minimal thickness of 1 cm: *Vieujot Heritage Juss* or *Vieujot Heritage Mortar* or *MG* range products.

In all cases, the trimming will be coupé or gratté with a sharp *berthelet* or nail board.

One recalls that it is possible to put up to 4 cm thickness in the sole top coat in *Vieujot Heritage Juss*. Thus, in the example of a 4 cm thickness, it is possible to make, either: a trimming of 1.5 cm and a top coat of 2.5 cm or directly a top coat of 4 cm.

## **2.3 Implementation of the Vieujot Heritage Juss**

### ***2.3.1 Precautions***

The code of practice for the application of a plaster coating must imperatively be respected. The juss should not be used at a temperature lower than 5° C, neither in full sun exposure or under the rain, nor on frozen support. The support, whose conformity with the regulation of chapter 2.1 will have to be checked, will be humidified to saturation, without surface shine.

### ***2.3.2 Mixing***

The Vieujot Heritage Juss implementation can be done, either: by hand, using a mixer: the mixing rate is then 50 to approximately 65% in water weight compared to the weight of the powder. By spraying, with a machine adapted to this use: the mixing rate is then approximately 65% in water weight compared to the weight of the powder. In any case, the mixing rate must obtain a paste holding charge some 3 to 4 cm thickness. Water used will be clean and free from matter suspension. No additive or addition, others that adapted pigments, will be added to the product or mixing water. In all the cases, the mix will have to be perfectly homogeneous, without clouds.

### ***2.3.3 Coating***

The Vieujot Heritage Juss is applied in only one sole homogeneous layer of the desired thickness. In no case should this thickness be lower than 25 mm, once the coating laid. It is floated with a strike, then even up with a smaller blade. One should not remix the coating when hardening has begun. Particular case of buttering and coating for stones with heads visible: Vieujot Heritage Juss must be filled in the joints up until contact with the rough-casting material, on a minimal total thickness of 25 mm.

### **2.3.4 Completion**

After setting, one re-cuts the Vieujot Heritage Juss with a sharp berthelet (finish *coupé*) or scrapes with a metal brush (finish *décapé*). It can then be washed with a sponge. It will then be rinsed in a careful way with water slightly under pressure, in order to eliminate laitance. In no case, can it be finished *lissé* or *serré*, nor burnished (except in the case of occasional courses). Fresh coating must be protected from direct sun exposure. Moreover, it must remain wet at least 48 hours. If necessary, it is appropriate of re-humidify the coating with clean water and a spray.

Conversely, it is advisable to prevent the coating from remaining wet for too long, whatever the cause is, so that carbonation may be accomplished. When hardness permits, the coating can be re-cut, in particular for joint scoring. Once perfectly dry, the coating can also be sanded or renovated, (including rubbed finishes such as sand-spraying) like a very tender stone.

Of course, the minimal thickness constraint of 25 mm is to be respected, included these works (in the case of dug joint left unfilled, the thickness is measured from the bottom of the joint; in the case of dug joint filled in white, the thickness is measured from the surface of the coating).

## **2.4 Particular points of implementation**

### **2.4.1 Before the coating**

#### *Change in load-bearing structure*

A hollow joint will be placed between the parts of the different load-bearing structures (for example in the case of an elevation). In the same way, a hollow joint will be placed right along eventual expansion joints (for example, in the case of a brand new concrete realization).

### **2.4.2 During the coating**

#### *2.4.2.1 External angles*

The external angles, for example at the framing level will be realized at once, or in two times. In any case, the surface of contact between between the 2 phases will be refresh by cutting with berthelet.

#### *2.4.2.2 Angles of bays (corner beads)*

A strip of galvanized wire mesh or fiber glass screen reinforced with mesh 9 X 9 for example or a galvanized expanded metal piece, of minimal dimension 30 X 15 cm will be sunk in the coating at each bay angle, at the base of the finishing coat.

### **2.4.3 After the coating**

#### *2.4.3.1 Protection against localized streaming*

In general, surfaces realized in Vieujot Heritage Juss must be protected from any localized streamings, in particular from water drops and back splashes. The following paragraphs treat of a few particular cases, but this principle of protection must be strictly followed in the construction on the whole of the work details.

#### *2.4.3.2 Backsplash surfaces*

Backsplash surfaces of more than 2 cm wide, must be protected by a splash board at least 7 cm high.

#### *2.4.3.3 Precautions during the construction progress on the building site*

All the necessary measures will be taken to avoid the localized streamings related to the temporary conditions during building construction: back splashes on scaffold boards, interrupted rain water descents, absence or faulty functioning of the roof top works or belt course (one will take care in this respect of a good managing schedule for the construction on site), delays before the installation of zinc works, etc... In this respect, a careful covering is generally necessary.

### **2.5 Subsequent treatments**

Any subsequent treatment others than those purely physical (sanding, joint scoring, re-cut,...) on the Vieujot Heritage Juss once finished, comes under the exclusive responsibility of the applicator and/or the supplier for treatment. The latter must bring their guarantee as for the behavior, the harmlessness and the durability of their treatment on the Vieujot Heritage Juss and/or the elements of structure and/or salubrity of the work. These restrictions apply in particular to paints, waterproofing treatments, etc... which, for lack of a specific study and of an explicit guarantee on behalf of the manufacturer and applicator, are formally prohibited.