

## **INSPECTION OBLIGATIONS FOR PARQUET AND FLOOR COVERING INSTALLATION (UG 20)**

The check and evaluation by the installer mainly focuses on measures that are carried out through „visual inspection“ on the construction site and through the use of common tools/equipment to examine the surface of the substrate and to measure the residual moisture within the substrate.

### **HUMIDITY**

Before laying the flooring, check that the subfloor is sufficiently dry for the covering (e.g. cement screed 2.0 CM %, cement screed with hot water underfloor heating 1.8 CM %, calcium sulphate screed 0.5 CM %, calcium sulphate screed with hot water underfloor heating 0.3 CM %). The test is made using a CM device; orienting measurements may be carried out electronically. The CRH method may also be carried out as a complementary measure. The limit values for both cement screeds and anhydrite flowing screeds are <80 % relative humidity for unheated screeds and <75% with integrated hot water underfloor heating. Our recommendations correspond to TKB reports 1-5.

### **SURFACE STRENGTH**

Surface strength of mineral screeds is tested using the grid scratch test (Ri-Ri device). During the scratch tests, deep scars or large area flaking must be avoided, especially at the crosspoints of the scratch lines. The screed must not chalk or sand. This can be checked using a wire brush. Near-surface inhomogeneities in the form of "hard shells" (sintered layers) can be detected by tapping with a hammer (hammer impact test). The screed must have a homogeneous structure with uniform strength.

### **EVENNESS**

Requirements for subfloor evenness as well as testing obligations are described in DIN 18202 "Tolerances in Building Construction – Structures". Table 3, line 3 applies to subfloors; line 4 applies to increased requirements for evenness. The test is made with a levelling rod and measuring wedge. Compliance with the tolerances required by DIN 18202 does not guarantee that the subfloor is sufficiently even for the chosen covering. Observe the manufacturer's instructions (coverings and flooring materials) or those of the authority issuing the invitation to tender.

### **ABSORBENCY**

For installing floor coverings with dispersion adhesives and water-based primers, the subfloor must have sufficient, even absorptive capacity. In the case of textile and resilient floor coverings, this is achieved by priming and levelling out the subfloor. If parquet flooring is to be bonded directly to screeds with dispersion adhesives, the screed must already have sufficient, even absorptive capacity. In this instance, the absorbency of the subfloor is tested using a water drop test, for example. As a rule of thumb: if dripped-on water disappears within 2 to 3 minutes and spreads out in the process, the screed is usually absorbent. A high porosity increases the absorbency even more.

### **CLEANLINESS**

The cleanliness of the screed surface must be checked by visual inspection. In particular, dust, paint, gypsum and mortar residues as well as residues of adhesives and levelling compounds must be removed to ensure that the strength of the structure is not impaired and interactions such as odours are excluded.

### **ABSENCE OF CRACKS:**

The surface of the subfloor must be inspected visually for cracks. Any existing cracks should be closed in a force-fit matter.

### **HEIGHT IN RELATION TO ADJACENT COMPONENTS**

The height of the areas to be covered should be checked in relation to the adjacent components – e.g. to adjacent rooms or door hinges. According to DIN EN 18040 for barrier-free construction, the maximum height offset after laying the floor may not exceed 1.5 mm. According to BGR 181, a maximum height offset of 4 mm applies at workplaces. No maximum value is specified for other areas.

### **EXPANSION JOINTS AND DUMMY JOINTS**

A visual inspection should check that expansion joints are equally wide, run in a straight line and functional. Expansion joints must not be closed. They are to be used in the same width in the floor covering. Dummy joints, also called "cut joints", or "trowel joints", are to be treated like cracks (see absence of cracks).

### **EXPANSION STRIPS**

Determine whether there is an expansion strip above the screed edge, which ensures a joint is kept securely in place on all rising and adjacent components in screeds.

### **SUBFLOOR TEMPERATURE**

The subfloor temperature should not be lower than 15 °C. For hea-

## TECHNICAL DATA SHEET

ted floor constructions, the temperature should be between 18 and 22 °C for 3 days before installation and for 7 days afterwards.

### TEMPERATURE AND AIR CONDITIONS IN THE ROOM

The room temperature and the relative humidity must be checked. The room temperature should be at least 18 °C, the relative humidity of the room should preferably be between 40 % and 65 %, but should not exceed 75 %. The client must ensure that these conditions are adhered to for at least 3 days before, during and 7 days after installation.

### UNDERFLOOR HEATING

For mineral screeds with hot water underfloor heating, designated measuring points for the CM moisture measurement have to be created by the screed layer. Stemming material can also be taken from this for measuring moisture according to the CRH method. For newly installed heating screeds, a protocol on function heating and screed curing must be available in accordance with DIN EN 1264.

### TENSILE BOND STRENGTH TESTING

Additional testing of the tensile bond strength does not have to be carried out as part of the general testing obligations. The tensile

bond strength is to be checked only in cases of doubt by the screed layer or better by the expert commissioned by the client. It is not a prerequisite standard test for testing preliminary work according to DIN 18356, DIN 18365 and others. A separate agreement is to be made if the test is to be done. The testing and, above all, the assessment should preferably be carried out by experienced experts or certification bodies (e.g. the FMFA, Baden-Württemberg; Otto-Graf-Institut, Stuttgart; Institute for Construction Materials Testing and Floor Research, Troisdorf, as well as the Materials Research and Testing Institute, Weimar).

The success of laying a parquet and floor covering depends largely on the appropriate subfloor preparation. According to the German Construction Contract Procedures VOB DIN 18356 "Laying of parquet flooring and wood block flooring," and VOB DIN 18365 "Flooring Work", the dryness, flatness and strength must be checked in advance by the floor layer. The work must be carried out in accordance with the generally accepted rules of the trade. In addition, the latest technical data sheets and instructions on the labels of our products 19052023