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**Sample ID:** BORPAINT BOYA

|   | TEST                                                                                                                                                                                                                | METHOD   | SPECIMEN      | RESULT          |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|-----------------|
| * | Thermal Performance Of Building Materials And Products- Determination Of Thermal Resistance By Means Of Guarded Hot Plate And Heat Flow Meter Methods — Dry And Moist Products Of Medium And Low Thermal Resistance | EN 12664 | BORPAINT BOYA | 0.02245 W/(m.K) |



Seal

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**Environment**

The requirements and standards apply to equipment intended for use in

|          |                                             |
|----------|---------------------------------------------|
| <b>X</b> | Residential (domestic) environment          |
| <b>X</b> | Commercial and light-industrial environment |
| <b>X</b> | Industrial environment                      |
| <b>X</b> | Medical environment                         |

**EN 12664: Thermal Performance Of Building Materials And Products- Determination Of Thermal Resistance By Means Of Guarded Hot Plate And Heat Flow Meter Methods — Dry And Moist Products Of Medium And Low Thermal Resistance**

**Scope**

This standard specifies principles and testing procedures for determining, by means of the guarded hot plate or heat flow meter methods, the thermal resistance of test specimens either in the dry state or conditioned to equilibrium with moist air, having a thermal resistance of not less than  $0,1 \text{ m}^2 \cdot \text{K/W}$  and a thermal transmissivity or thermal conductivity up to  $2,0 \text{ W/(m} \cdot \text{K)}$ .

This standard does not supply general guidance and background information (e.g. the heat transfer property to be reported, product dependent specimen preparations, suggested materials for vapourtight envelopes when testing moist specimens, procedures requiring multiple measurements, such as those to assess the effect of specimen non-homogeneities, those to test specimens whose thickness exceeds the apparatus capabilities, and those to assess the relevance of the thickness effect). Due to these limitations, this standard shall only be used in conjunction with the product standard relevant to the product to be tested.

**Conditioning**

|                       |            |
|-----------------------|------------|
| Temperature (°C)      | $23 \pm 2$ |
| Relative Humidity (%) | $50 \pm 5$ |

**Procedure**

*Heat Flow Meter*

Measure the average electrical power supplied to the metering area to within  $\pm 0,1 \%$ .

Fluctuations or changes in the temperatures of the heating unit surfaces during the test period, due to random fluctuations or changes in their input power, shall not exceed  $0,3 \%$  of the temperature difference between the heating and cooling units.

Adjust and maintain the power input to the guard section, preferably by automatic control, to obtain the degree of temperature balance between the metering and guard section that is required to keep the sum of the imbalance and edge heat loss errors within  $0,5 \%$ .

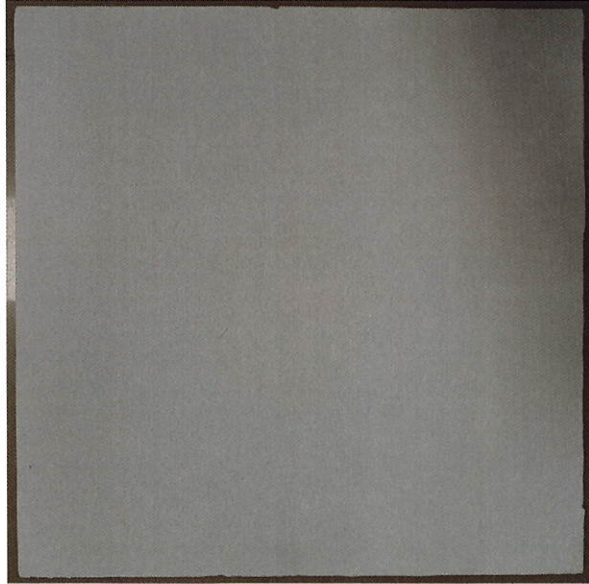
Observe the mean temperature and the electromotive force output of the heat flow meter, the mean temperature and the temperature drop across the specimen(s) to check when they are stabilized.

Ensure that the temperature fluctuations (as a function of time) at the surface of the heat flow meter do not cause fluctuations in its electrical output greater than  $2 \%$  during the test period.

**Test Result**

| Test                 | Result         |
|----------------------|----------------|
| Thermal Conductivity | 0.02245W/(m.K) |

**Sample Images**



**\*\*\*End Of Report\*\*\***