

Specification sheet of construction materials (PVC windows and doors)

Field of application

This specification sheet is regulating the technical requirements of materials used for the acquisition of PVC windows and doors joinery replacement works as a component part of the tender book.

Impact on the environment:

- Energy consumption and CO₂ emissions related to heating/cooling;
- Emissions of hazardous substances for human health and environment during the production or the end-of-life of construction materials that cause air and water pollution;
- Negative impact on the health of building users, caused by construction materials containing hazardous substances;
- CO₂ emissions generated by the transportation of materials.

Tackling green public procurement:

- Maximization of energy performance;
- Provision of high energy efficiency standards for heating/cooling systems;
- Inclusion of a systematic approach regarding the life cycle of construction materials;
- Encouragement of the use of non-toxic construction materials, relying also on the availability of construction materials on the basis of recyclable raw material;
- Encouragement of the use of substitute substances/materials for construction materials containing hazardous substances, relying also on the availability of construction materials on the basis of recyclable raw material;



- Use of energy efficient vehicles for transport and on the construction site;
- Application of efficient management systems of the supply chain.

Criteria for green public procurement regarding construction materials

For the acquisition of joinery replacement works, and namely of long-lasting construction materials – doors and windows, the contracting authority shall establish in its tender book their technical description in accordance with the criteria set forth below, but not limited to them, being intended to tackle the aspects on environmental protection, energy efficiency, mechanical resistance and durability, fire safety, noise protection, manufacturing process, etc.

Minimum technical specifications for joinery (example):

- A-class PVC window profiles, thickness of exterior walls $\geq 2,8$ mm;
- 5-chamber window profiles reinforced with 1,5 mm coated steel, specially treated against corrosion;
- Ecological profiles (lead-free) –Green Line certification or an equivalent certification
- Profiles must have the capacity of being recycled
- Heat transfer coefficient: $K = \max. 1,5 \text{ W/mpK}$
- Low-e double glazing windows (argon or krypton filled), 24 mm (4-16-4)
- Acoustic insulation– min. 35 dB
- Fire safety – C-class according to EN 13501 or an equivalent thereto
- Water seal – 7A-class according to EN 12208 or an equivalent thereto
- Behavior at wind charge – C3-class according to SREN 12210 and SREN 12424 or an equivalent thereto
- Air permeability – C3-class according to SR EN 12207 or an equivalent thereto
- Ecological maintenance (possibility of profile cleaning without the use of chemical substances)
- Joinery shall not need to be painted
- Anti-statically treated profiles



- Sustainable ironmongery, oscillating-swinging opening system, high degree of safety
- Resistance to opening: windows - min. 10000 cycles, doors - min. 100000 cycles
- Profile warranty period – min. 10 years
- Ironmongery warranty period – min. 5 years

Windows shall be completely assembled and fitted from the inside and on the exterior, duly observing minimum requirements and rules in force, including the appropriate aesthetic aspect, excluding cracks, drawbacks and defects.

***Note:** *The contracting authority can set the requirements in the tender documentation for windows and doors sketches, according to the needs of the institution.*

Verification: economic operators shall additionally submit a technical description of the proposed windows, as well as official documents confirming the characteristics of windows/doors' materials (quality certificates, test reports, etc.). If joinery certification had been performed in accordance with applicable standards, it will be mandatory for the economic operators to submit a confirmation, including the one issued by the relevant authority, justifying that the joinery meets the minimum requirements.

Mandatory requirements:

1. The fitting with production facilities for the appropriate execution of the joinery;
2. Existence of qualified staff for the production of windows (including the presentation of qualification certificates);
3. Certification of quality management system for the production of joinery in accordance with ISO 9001;



4. Certification of management system according to EN ISO 14001/EMAS standards or equivalent standards;
5. Means of transport that are to be used for the transportation of construction materials shall meet at least the requirements EURO 4 for emissions (the supplier must submit a list of vehicles which are to be used for the delivery of goods and the specification sheets comprising the emission levels).

Applicable award criteria:

1. The lowest price and the observance of minimum requirements;
2. “The most economically advantageous tender” in accordance with the provisions of the standard documentation regarding procurement procedure of the works. The contracting authority shall provide additional points for “higher performance comparing to the minimum requirements included in the specification sheets” (for instance, for the heat transfer coefficient, the acoustic protection, warranty period, etc.). Points shall be conferred proportionally to the improvement of performances (the contracting authority shall specify in the tender documentation the points conferred for each assessment sub-criteria). Performance/impact criteria on the environment shall constitute at least 15% from the total conferred score.