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**3D network structured fiber  
materials of the thermoplastic  
polymer**

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## Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Act.

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# 3D network structured fiber materials of the thermoplastic polymer

## 1 Scope

This Japanese Industrial Standard specifies requirements for the fiber structures comprising a spacial structure obtained by welding or connecting of continuous fibers of thermoplastic resin in three dimensional directions (hereafter referred to as thermoplastic 3D network fiber structures).

This Standard is applicable to thermoplastic 3D network fiber structures used for the cushioning of load-bearing products such as bedding items, chairs, seats of moving bodies, etc.

The classification of thermoplastic 3D network fiber structures by product type is shown in Table 1.

This Standard is not applicable to:

- a) single layer products 5 mm or less in thickness<sup>1)</sup> and laminated products 5 mm or less in thickness;
- b) raised fibers or pile fibers used for hook-and-loop fasteners, floor coverings, etc.;
- c) multiaxial woven fabrics such as triaxial woven fabric and quadraxial woven fabric;
- d) thermoplastic 3D network fiber structures used for construction materials;
- e) laminated products consisting of thermoplastic 3D network fiber structures and other materials.

Note<sup>1)</sup> For these products, the test piece specified in Annex B may be used to determine characteristic values of test piece according to the methods given in Clause 9, in which case, however, the classifications specified in Clause 4 cannot be applied.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7512 *Steel tape measures*

JIS B 7516 *Metal rules*

JIS K 6418 *Thermoplastic elastomers—Nomenclature and abbreviated terms*

JIS K 6899-1 *Plastics—Symbols and abbreviated terms—Part 1: Basic polymers and their special characteristics*

JIS K 7248 *Cellular plastics and rubbers—Determination of linear dimensions*

JIS L 0105 *General principles of physical testing methods for textiles*

JIS L 0204-2 *Glossary of terms used in fibre—Part 2: Man-made fibres*

JIS L 0205 *Glossary of terms used in yarn*