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**THERMAL MODIFIED TIMBER - DEFINITIONS
AND CHARACTERISTICS**

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English Version

Thermal Modified Timber - Definitions and characteristics

Bois Modifié Thermiquement - Définitions et caractéristiques

Thermisch modifiziertes Holz - Definitionen und Eigenschaften

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Foreword

This document (CEN/TS 15679:2007) has been prepared by Technical Committee CEN/TC 175 "Round and sawn timber", the secretariat of which is held by AFNOR.

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Introduction

The principal changes on thermal modification of timber - compared with untreated wood – are improved dimensional stability and increased resistance to decay by wood destroying fungi, and in some cases changed colours..

Due to the treatment, equilibrium moisture content of thermally modified timber is reduced.

Because of altered strength properties comparing to untreated wood, for the use of TMT, it is essential that the relevant requirements of European and national Standards be taken into consideration.

Thermal modification may have an influence on reaction to fire properties of timber.

The properties of thermally modified timber and the degree that the property changes is dependent of the wood species, the type of technology and the process parameters, particularly the treatment temperature level.

The altering of acoustic properties can be of interest particularly for musical instruments.

Some tests have shown an increased resistance of TMT against some insects. Improved resistance against termites has not been proved. Requirements on resistance against termites in some EU member states are to be taken into consideration.

The technologies for manufacturing thermally modified timber are mainly characterized by the way they reduce the oxygen concentration during treatment. The currently applied, industrial scale processes are using atmospheres of heated air and or steam or heated nitrogen or in a bath of heated oil.

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