



CHARACTERISTIC STRENGTH OF STRUCTURAL GRADE 5 (PINUS)

The following tests were conducted by SATAS to comply with the requirement on strength verification as published in SANS 1783 part 2 par 4.2

TEST METOD

Tensile strength test as published in SANS 1122

SAMPLING

100 units visual structural grade 5 (pinus) were sampled from each of 12 different sawmills in Mpumalanga .

TEST

The worst section on each unit was selected and subjected to a tensile test following SANS 1122. Not all the units were tested to failure.

The following was recorded:

Moisture content; Dimensions: Mass

RESULTS

1) Tensile strength:

The following 5th percentile characteristic tensile values were calculated. The required 5th percentile characteristic tensile value for grade 5 is 6,7 Mpa

Sawmill	Mpa	Sawmill	Mpa
A	19,46	G	10,8
B	15,1	H	13,1
C	13,9	I	11,0
D	10,2	J	8,8
E	14,4	K	12,7
F	10,8	L	8,6

2) Density:

2% of the units measured a density lower as the requirement of 360 Kg /m³ ,of which 0,2% failed below the required 5th percentile value.

CONCLUSION:

The samples from above sawmills comply with the strength requirements for a grade 5 as published in SANS 10163 when graded in accordance with the visual grading rule as in SANS 1783. This does not mean that all units will always comply with these requirements.

Groete
Abe Stears
SATAS

KARAKTERISTIEKE STERKTE VAN STRUKTUELE GRAAD 5 (PINUS)

SATAS het die volgende toetse uitgevoer ten einde te voldoen aan die vereiste tov sterkte verifiëring soos in SANS 1783 deel 2 par. 4.2

TOETS METODE

Treksterkte toets soos in SANS 1122 gepubliseer

BEMOSTERING

100 Eenhede visuele strukturele graad 5 (pinus) by elk van 12 verskillende saagmeulens in Mpumalanga .

TOETS

Die swakste area in elke eenheid is aan 'n trek toets onderwerp volgens SANS 1122. Nie al die eenhede was tot falings getoets nie.

Die volgende is genoteer:

Voggehalte; Afmetings; Gewig

RESULTATE

1) Treksterkte:

Die volgende 5de persentiel karakteristieke trekwaardes is bereken. Die vereiste 5 de persentiel karakteristieke trek waarde vir graad 5 is 6,7 Mpa

Saagmeul	Mpa	Saagmeul	Mpa
A	19,46	G	10,8
B	15,1	H	13,1
C	13,9	I	11,0
D	10,2	J	8,8
E	14,4	K	12,7
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2) Digtheid:

2% van die eenhede het 'n digtheid van laer as die vereiste 360Kg/m³ gemeet ,waarvan 0,2% gefaal het onder die vereiste 5de persentiel waarde

GEVOLGTREKKING:

Die monsters vanaf bogenoemde saagmeulens voldoen aan die vereistes vir 'n graad 5 soos in SANS 10163 indien gegradeer volgens die visuele gradeer reël soos in SANS 1783. Dit verseker egter nie dat alle eenhede te alle tye sal voldoen nie.

Groete
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SATAS