

# Acceptance for deformation of dried sawnwood: A survey among practitioners in Norwegian sawmilling

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# Introduction

**Two new domestic technical specifications  
for interior panelling and exterior cladding**

**The introduction of new production  
standards does often pose problems**

**A survey was conducted to find possible  
challenges for the new grading rules**

# Grading rules and standards in Norway

## **Sawnwood:**

- **Gröna boken - late 1800s**
- **ØS-reglene - 1930s**
- **Nordic Timber - 1994**

## **Structural timber:**

- **NS-INSTA 142 - 1997**

## **Interior panelling and exterior cladding:**

- **NS 3180 - 1976**
- **SN TS 3183 and SN TS 3186 - 2008**

# Survey design

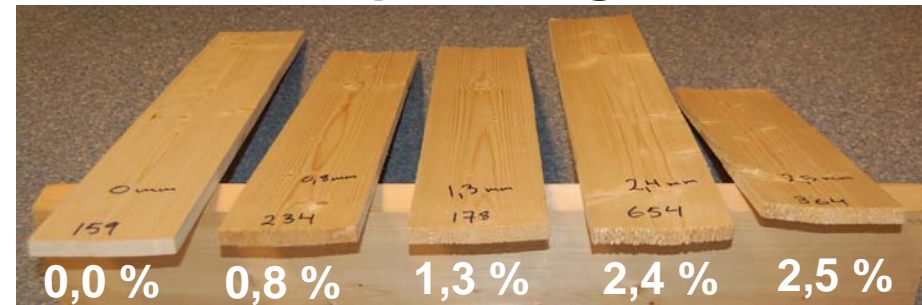
**Personnel from  
Norwegian sawmills**

**Number of  
respondents: 31**

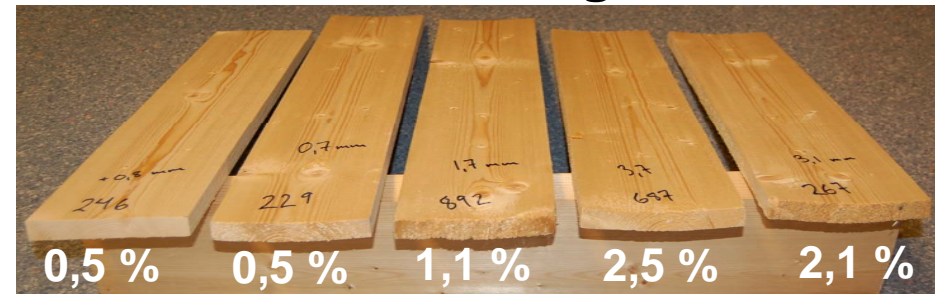
**58 % where between  
45-59 years**

**65 % had more than  
15 years of  
experience**

**Cup:  
interior panelling**



**exterior cladding**



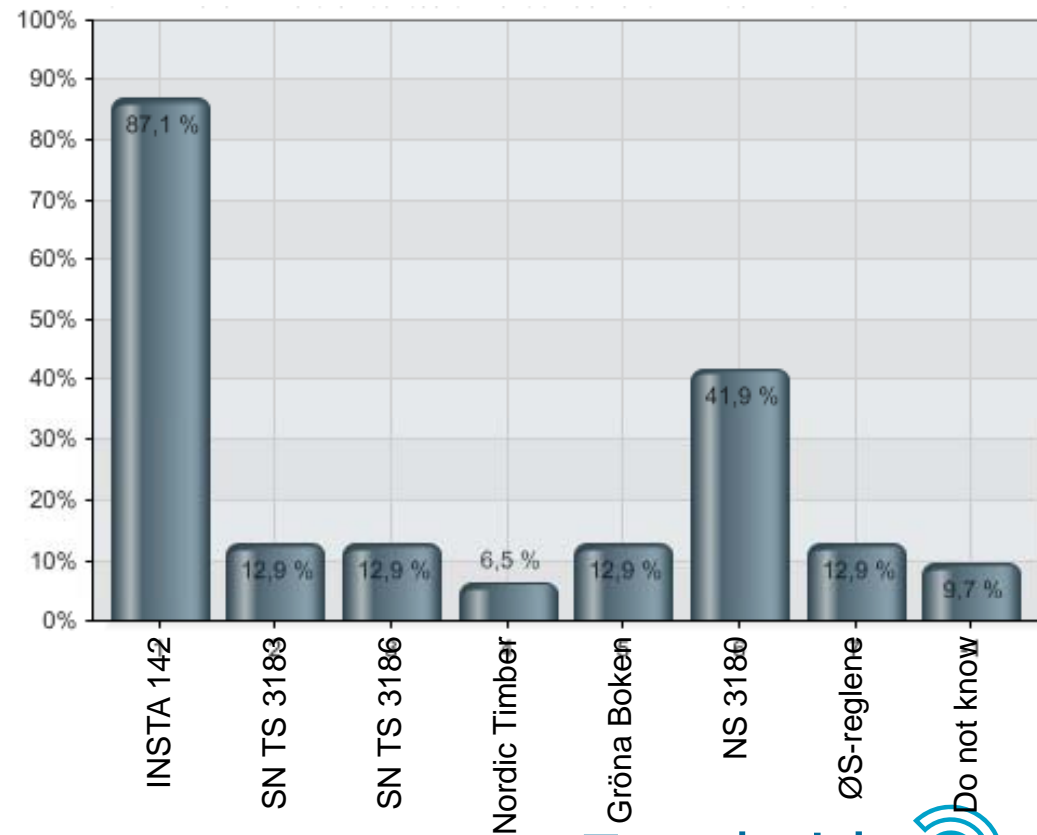
**Twist:  
1 mm 3 mm 5 mm 10 mm 33 mm**

# Results standards in use

*Which standard/ standards does your company use in grading?*

**INSTA 142 is most commonly used**

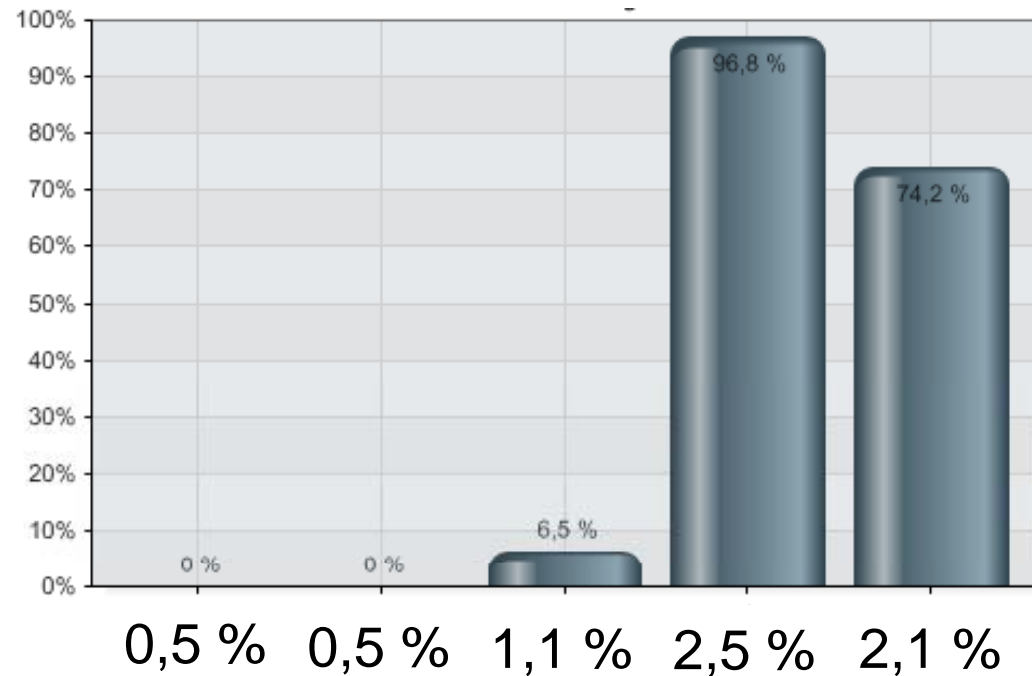
**SN TS 3183 and SN TS 3186 is not yet implemented**



# Results cup: Exterior Cladding

***Which of these cladding samples do you think have to much cup to be suited for a cladding?***

**Acceptance were according to the new technical standards**



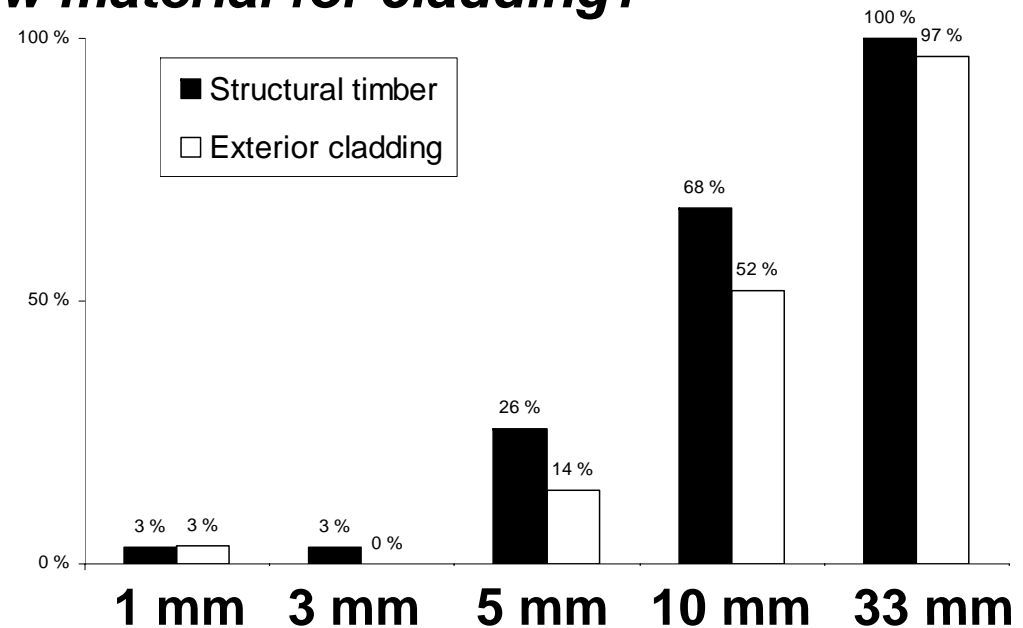
# Results twist: Exterior Cladding and Sawnwood for Construction

***Which of these planks do you think have to much twist to be suited as raw material for structural timber?***

***Which of these planks do you think have to much twist to be suited as raw material for cladding?***

**Acceptance for structural timber were according to INSTA 142**

**There are no formal requirements for raw material used for exterior cladding**



# Discussion

**Several appearance grading rules are used in Norwegian sawmilling**

**Respondents were able to distinguish minor quality changes (cup and twist)**

**The new grading rules are more precise and perhaps more conservative.**

**The new grading rules correspond well with previous experience and should therefore be easy to implement in Norwegian sawmilling**

**Close cooperation with the industry is required for a successful implementation of a new standard**

**Possible influences on result:**

- **Not carried out in an industry setting**
- **More time to evaluate the samples**
- **Size of pieces can affect the appearance of deformation**

Thank you for your attention!