

ABSOLUTE vs. RELATIVE MOISTURE CONTENTS

Absolute moisture contents W_b is defined with the following formula:

$$W_b = \frac{m_w - m_s}{m_s} * 100 \quad [\%]$$

where:

- m_w – weight of a sample before drying
- m_s – weight of a completely dry sample

Relative moisture contents W_w is defined with the following formula:

$$W_w = \frac{m_w - m_s}{m_w} * 100 \quad [\%]$$

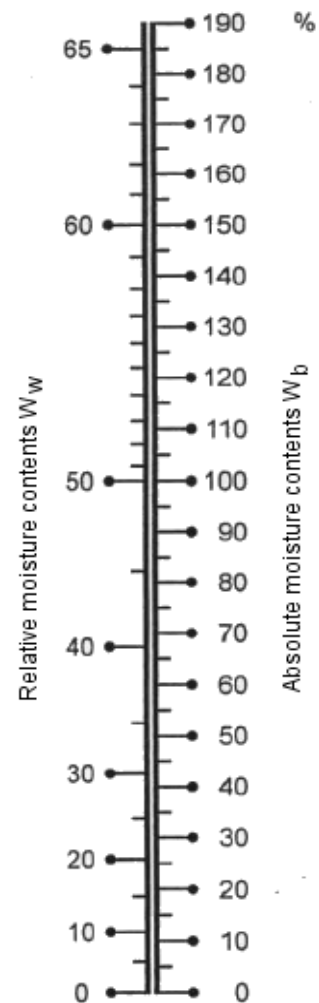
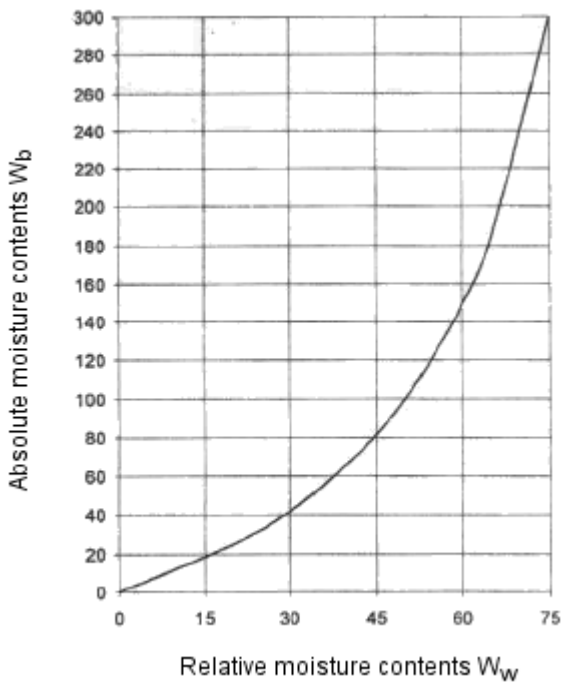
where:

- m_w – weight of a sample before drying
- m_s – weight of a completely dry sample

Therefore the relationship between absolute and relative moisture contents is:

$$W_b = \frac{W_w}{1 - W_w} \quad \text{and} \quad W_w = \frac{W_b}{1 + W_b}$$

This relationship is presented on the figures below:



For practical and historical reasons the moisture contents of wood is always the absolute moisture contents.