

# Preface

The word *quality*, referred to products or services, has become one of the most frequently used phrases in our everyday life. At the same time, quality is a very complex meaning depending on a myriad of influencing factors pertinent to the given product or service.

In the woodworking industry the parts manufactured for a given end product have almost always free surfaces being in service for many years. These generally visible surfaces should be machined, treated and finished from the properly selected raw material in such a way that they retain their required physical, mechanical and aesthetical properties for a long time. Therefore, problems encountered in the manufacture of wood surfaces deserve special attention.

This book *Quality of Machined Wood Surfaces* is the first attempt to summarize the existing knowledge scattered in the literature and to integrate them into a unified and scientifically well-founded topic. The material published in this book draws on the international literature of several languages, but at the same time it relies on own research works to a considerable extent.

The book consists of an *Overview* and three main chapters. Chapter 2 deals with the general problems of surface stability concerning environmental effects and artificial treatments (irradiation, heat, moisture, mechanical loads). Chapter 3 treats the colour characterization of wood surfaces with a considerable amount of practical applications and new representation methods. The gloss of wood surfaces is a quite *new extended experimental result*, the basic regularities of gloss for natural and treated wood surfaces are established. Chapter 4 of the book deals with the roughness properties of machined wood surfaces using also three-dimensional measurement results. The importance of some, less used distribution parameters is introduced and a quite new topic on the roughness modification effect of wetting is presented.

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