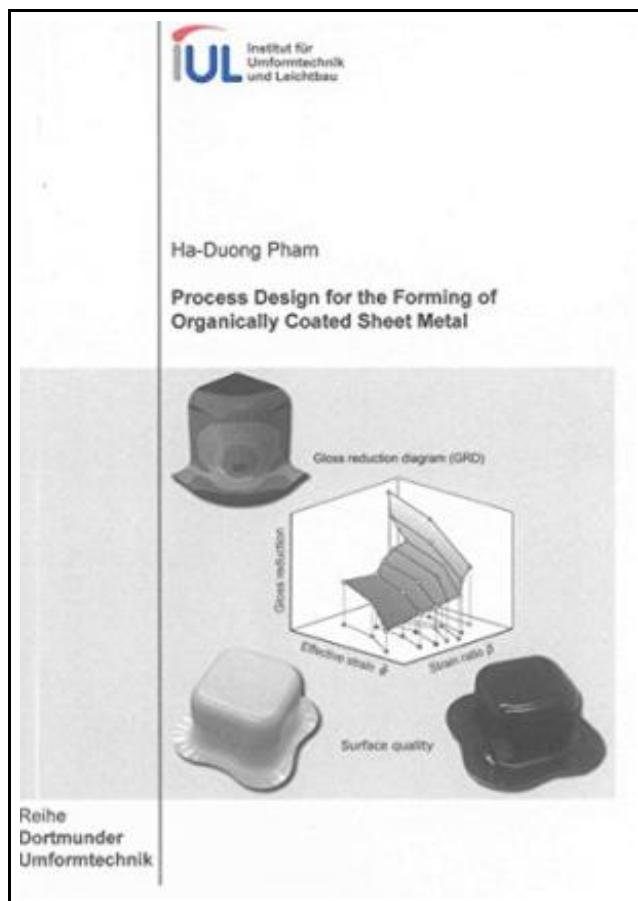


# Process Design for the Forming of Organically Coated Sheet Metal



Filesize: 7.92 MB

## Reviews

*This composed book is excellent. This really is for all who state that there had not been a worth reading through. Your life period will probably be change as soon as you total looking over this ebook.*

*(Cheyanne Barrows)*

## PROCESS DESIGN FOR THE FORMING OF ORGANICALLY COATED SHEET METAL

[DOWNLOAD](#)

Shaker Verlag Aug 2011, 2011. Taschenbuch. Book Condition: Neu. 211x149x12 mm. Neuware - In this research work, the process design for forming of organic coated sheet metal has been investigated. The project aims firstly at the investigation of the forming behavior of the OCSM, focusing on changes of the optical properties i.e. gloss degree depending on process parameters. Consequently, the application of Finite Element Method (FEM) to simulate the forming process of the OCSM and to predict the change of the surface properties is discussed. The FE modeling allows, finally, a material-based process design and optimization of forming process. The experimental results indicate that the gloss reduction of the coated surface is basically caused by the strain states and strain level imposed on both steel substrate and the coating layer. In order to predict exactly the coating failures the forming limit diagram of coating (FLDC) should be used instead of the forming limit diagram (FLD) of steel substrate. By using FLDC, the formability concerning the optical property of the coating layer is considered in the process design of OCSM. Furthermore, the dependence of the gloss reduction on the strain states can also be taken into account. The obtained results are finally validated by hydro-mechanical deep drawing (HDD) for forming of complex practice-oriented geometry. The influences of process parameters on the surface property of OCSM products in HDD process are also investigated. For this purpose, an analytical model is first investigated in order to evaluate the influences of geometrical and process parameters on the strain states and strain distributions over the forming part. Based on the conclusions obtained by the analytical results, the process design for the HDD process using OCSM can be optimized with regard to the best surface characteristics of organically coated layers. 152 pp. Englisch.

[Read Process Design for the Forming of Organically Coated Sheet Metal Online](#)[Download PDF Process Design for the Forming of Organically Coated Sheet Metal](#)

## Other eBooks

---



### **Psychologisches Testverfahren**

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

[Save Document »](#)

---



### **Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel's System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers (Paperback)**

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. This historic book may have numerous typos and missing text. Purchasers can download...

[Save Document »](#)

---



### **Programming in D**

Ali Cehreli Dez 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware - The main aim of this book is to teach D to readers...

[Save Document »](#)

---



### **Who Am I in the Lives of Children? an Introduction to Early Childhood Education, Enhanced Pearson Etext with Loose-Leaf Version -- Access Card Package**

Pearson, United States, 2015. Book. Book Condition: New. 10th. 250 x 189 mm. Language: English . Brand New Book. NOTE: Used books, rentals, and purchases made outside of Pearson If purchasing or renting from companies...

[Save Document »](#)

---



### **Who am I in the Lives of Children? An Introduction to Early Childhood Education (Paperback)**

Pearson Education (US), United States, 2015. Paperback. Book Condition: New. 10th Revised edition. 254 x 201 mm. Language: English . Brand New Book. Note: This is the bound book only and does not include access...

[Save Document »](#)