Frank Händle Editor Engineering Material and Processes

Extrusion in Ceramics



Contents

1	Introduction by Frank Händle	1
2	Shaping in Ceramic Technology – an Overview by Andrea Bresciani	13
3	Current Classification of Ceramic Materials by Hubertus Reh	39
4	Types of Extrusion Units by Willi Bender	63
5	A Short History of the Extruder in Ceramics by Willi Bender, Hans H. Böger	91
6	The Principle of the Auger Extruder by John Bridgwater	137
7	Rheology of Ceramic Bodies by Fritz Laenger	153
8	Rheology and Extrudability of Ceramic Compounds by Wolfgang Gleißle	175
9	Scenarios of Extrusion by Dietmar Lutz	189
10	Laminations in Extrusion by Rainer Bartusch, Frank Händle	205
11	Additives for Extrusion by Michael Hölzgen, Peter Quirmbach	233
12	About Dies, Pressure Heads, Strainer Plates and more by Harald Berger	245
13	Twin-srew Extruders in Ceramic Extrusion by Werner Wiedmann, Maria Hölzel	265
14	Piston Extruders by Günther Doll, Frank Händle, Fritz Spießberger	287

15	Evacuation in Ceramic Extrusion – Dependences and Local Situations by Fritz Laenger	303
16	Evacuation Technology for Ceramic Extrusion by Mark Redmann	
17	Thermoplastic Extrusion for Ceramic Bodies by Frank Clemens	323
18	Tribological Principles by Günter Mennig	345
19	Wear Protection for Augers in Ceramic Extrusion-state-of-the-art by Walter Reisinger	355
20	Perspectives for Wear Reduction with Ceramic Extruder Components by Holger Wampers	363
21	Test Methods for Plasticity and Extrusion Behaviour by Katrin Göhlert, Maren Übel	
22	Simulation in Ceramic Extrusion by Boris Buchtala, Sigrid Lang	399
23	Selected Literature by Frank Händle, Kerstin Hohlfeld	419
Th	e Authors of the Book	451
Ind	lex	465