DETAII Praxis

Translucent Materials

Glass Plastics Metals

> + HOCHSCHULE • LIECHTENSTEIN filbUothek

Frank Kaltenbach (Ed.)

Birkhauser Edition Detail

DETAII Praxis Translucent Materials

Contents

Frank Kaltenbach 6 Translucency - Light made material Andrea Compagno 10 Glass as a building material The material - Types of glass - Properties of glass -The glass facade - Glass panes -Surface Treatments -Multi-layered glass- Insulating glass 26 Structural glass Joachim Achenbach Glass skeleton construction Werner Sobek, Lucio Blandini Structural gluing Armoured laminated glass Werner Sobek, Frank Maier GRP-glass composite systems Jan Knippers, Stefan Peters 40 Frank Kaltenbach Plastic- Semi-finished sheet products Manufacture - Materials and properties -Standard semi-finished products - Individual design possibilities The dream of free form - Everything possible in the future? Karsten Moritz 58 Membrane materials in structural engineering Membrane materials - Surface coatings -Requirements and applications -Material properties - Coated fabrics - Sheeting Karsten Moritz, Rainer Barthel 70 Building with ETFE sheeting Construction principles - Manufacture and processing -Mechanical properties-Building physics properties-Planning - Assembly - Approval for use - Assessment Stefan Schafer 80 Diaphanous metals Diaphanous metal building envelopes - General points -Metallic materials - Alloys - Surfaces -Diaphanous semi-finished sheet products - Metal fabrics

100

102

108

110

Standards

Subject index Picture credits

List of manufacturers

Glass - Plastics - Membranes - Metal