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Sound Absorption and Mechanical Properties of Porous Stampable Sheet

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⅔ ╠ ┘ ╖ ≠ ≠ ⅝ ╣ ↓ ≤ ⅜ ⅛ ∫ √ 9 ● = ☻ ⅜ ; ™ ╒ ≥
│ ɔ ⌂ ┤ ⅜ ˊ ' ѵ fi v ¸ א ⅜ ɹ — ⅜ ↓ ∫ √ ⌐ │ │
; ڃ Δ ╢ 9 ف— ≤ │ ™ ╨ ⇔ ⅜ 350 500
Pa ┴ s/m — ⌐ №╢ ⌐ │ ⌐ ⌂ ┤ 9 ● = ☻ ⅔ ╠ ┘ ╖
— ╖ ╤ ∑ ╨ ⅜ ڃ ≤ ⌂ ┤ ╠ e ⌐ ⇔ √ ◓ = ☻ ► Ẃ ' ˩ Ẃ Ꝑ ≤
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Synopsis :
It was found that the sound absorption and mechanical characteristics of porous mold could be controlled by the selection of moderate glass fiber (GF) content, sheet density and sheet thickness. With an increase in polypropylene (PP) content, the compressive strength was enhanced, however, at a high PP content, voids were filled with PP and the sound absorption characteristics deteriorated. The sound absorption characteristics of the porous mold were correlated well with the specific flow resistance and were maximized when the specific flow resistance was set at the range of 350 to 500Pa /m. If the GF content, the density and the thickness are suitably selected, the porous mold shows good sound absorption characteristics, comparable to those of glass wool boards, as well as good mechanical properties, exceeding those of glass wool boards.

新規スタンパブルシート*

Sound Absorption and Mechanical Properties of Porous Stampable Sheet

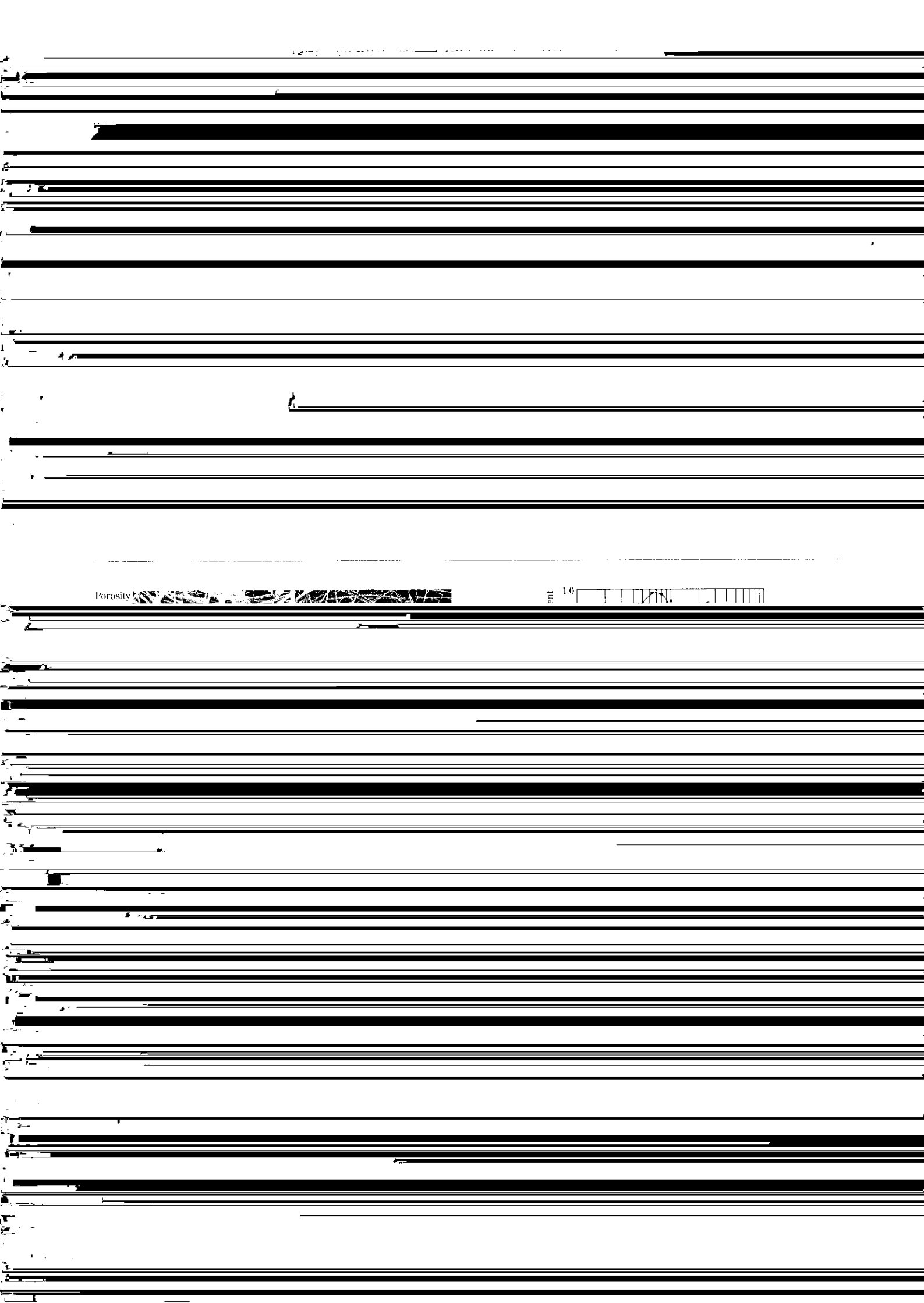


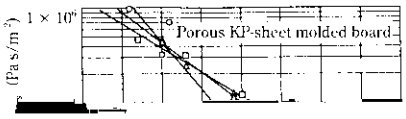
要旨

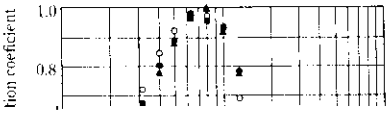
抄紙法スタンパブルシートを原料として得られる多孔質成形体の吸音特性は，ガラス繊維含有率，密度および厚みで制御できること

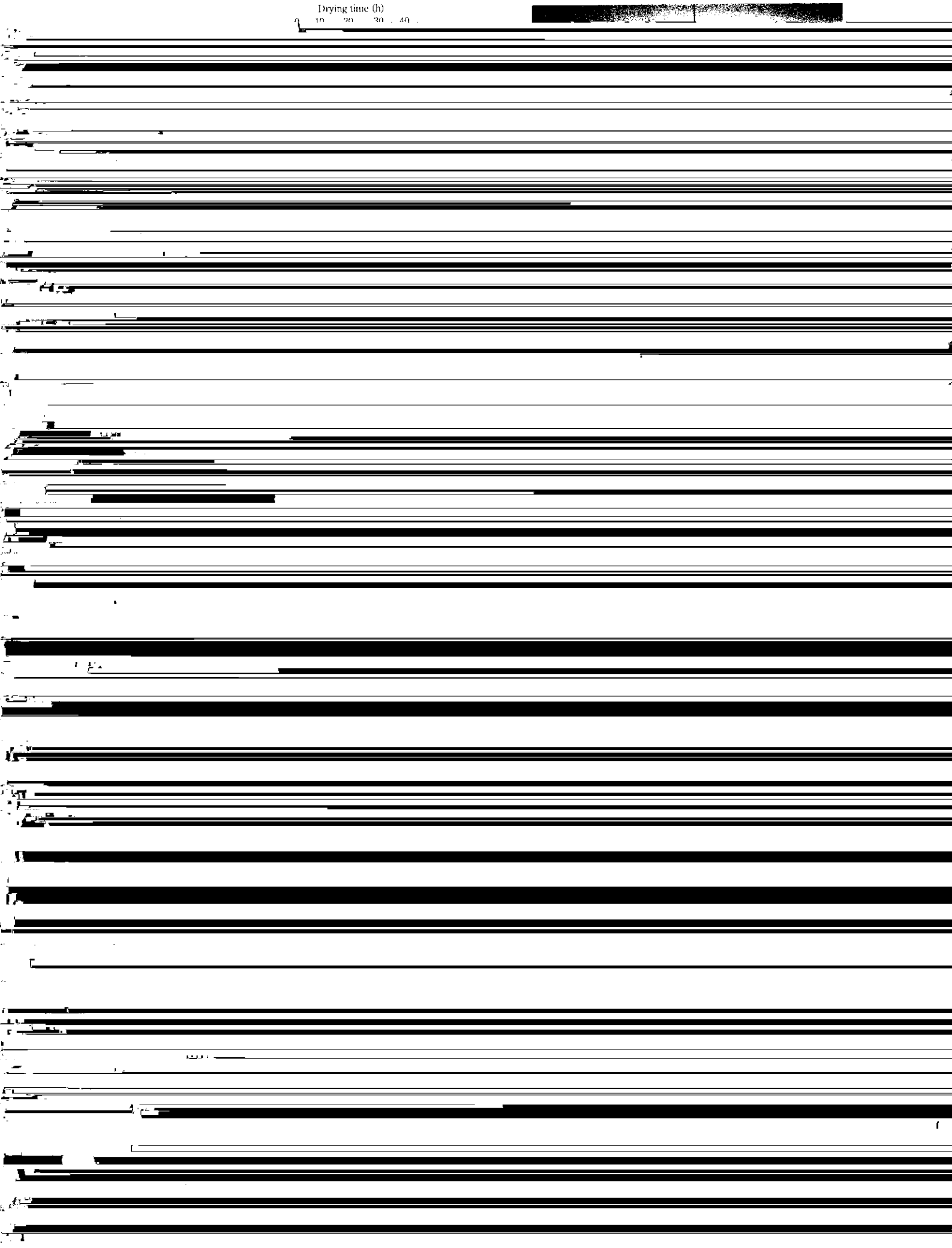
の範囲にあるときに，吸音率の極大値が最も高くなることを報告し

した。その後，所定の流速に調整した N_2 を流通し，流速が一定に


Porosity
1.0


1 × 10⁶
(Pa·s/m²)
Porous KP-sheet molded board


1.0
0.8
tion coeficient


Drying time (h)
0
10
20
30
40

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