

新垣 勲 可 組 員 一 二 七 一 一

足 立 康 信

森 勝 朗

東 山 和 康

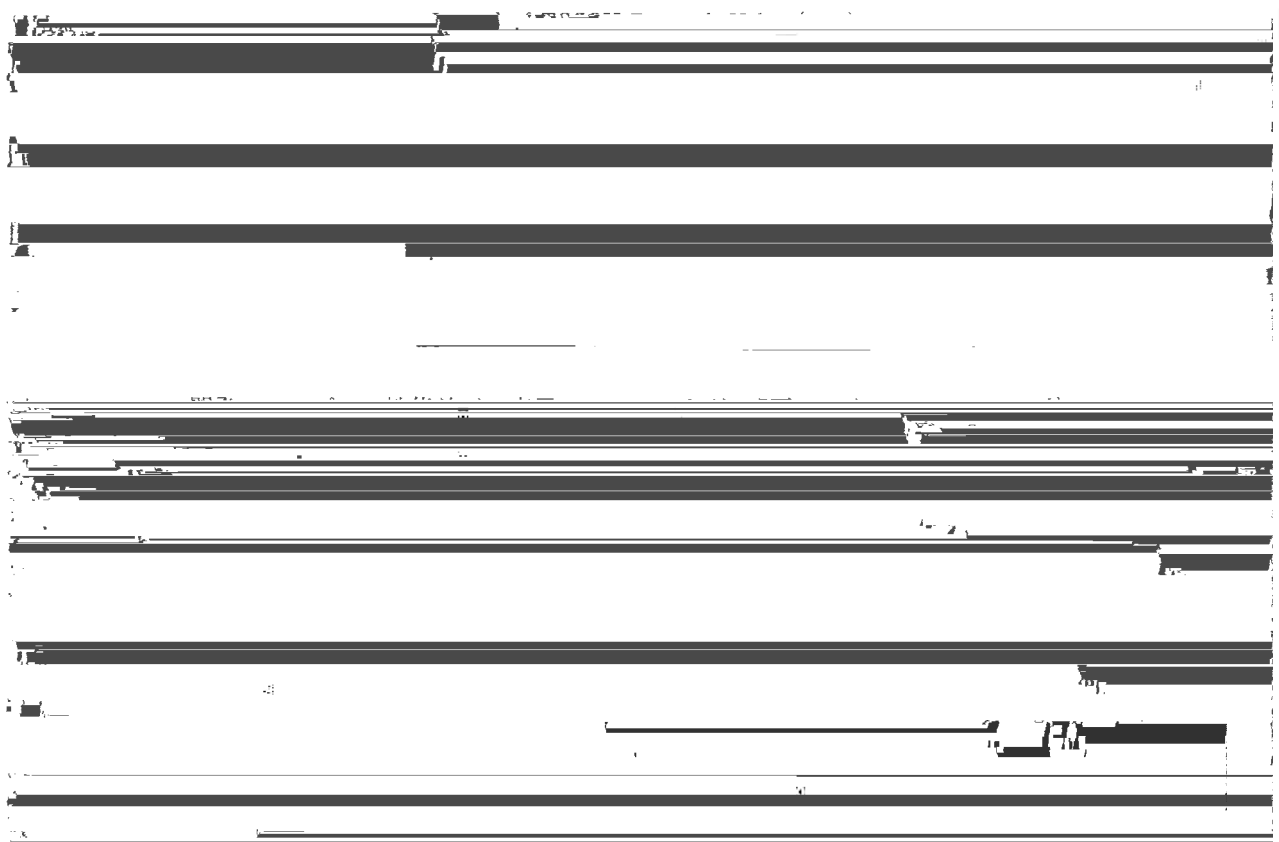


Fig. 1. [Illegible text]

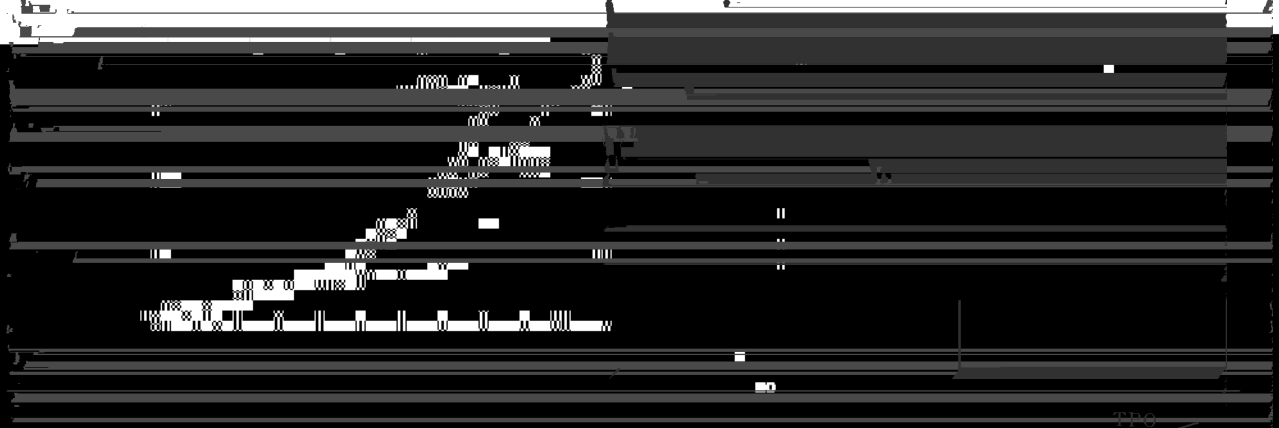


Fig. 2. [Illegible text]

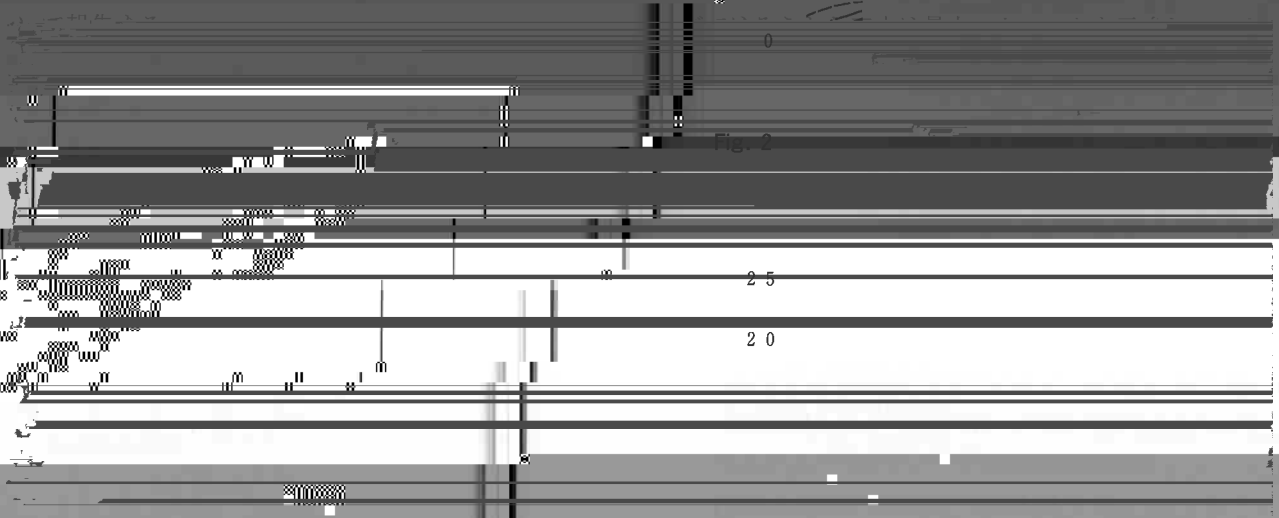


Fig. 3. [Illegible text]

8

8

2.5

2.0

0

Unit

Tensile strength 6.5 15.0 12.0

100% Modulus 0.72 2.0 2.9

Hardness, durometerA JIS K6301 35 37 41

MPa

%

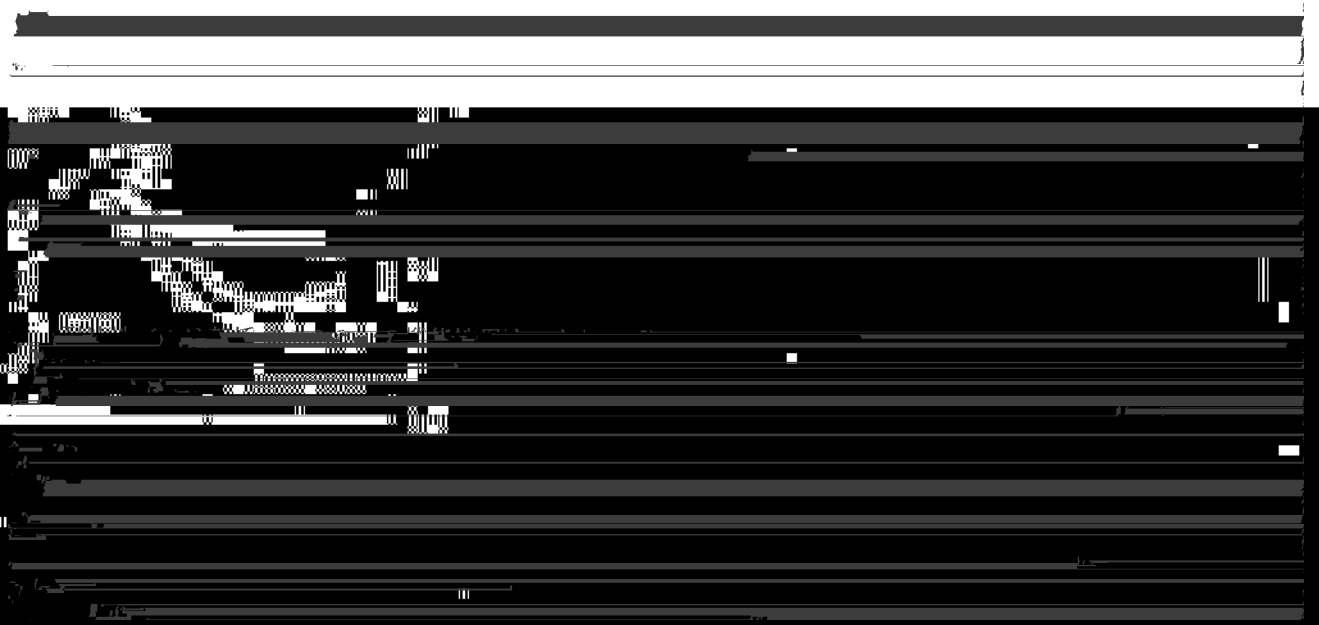
MPa

Tear strength kN/m <3

Compression set % JIS K6301 32 50

(Area) %

Teach's



[REDACTED]

イブとしてFD-1104W、1615Uの2グレードを設定

[REDACTED]



$10^6$

$10^{-2}$

100

[REDACTED]



Figure 11: Plot of storage modulus  $E'$  and loss modulus  $E''$  versus temperature for ED series. The plot shows two curves: a solid line for  $E'$  and a dashed line for  $E''$ . The x-axis is Temperature (°C) on a logarithmic scale from  $10^0$  to  $10^2$ . The y-axis is Modulus (Pa) on a logarithmic scale from  $10^9$  to  $10^{10}$ .  $E'$  starts at  $10^{10}$  Pa at  $10^0$  °C and decreases to  $10^9$  Pa at  $10^2$  °C.  $E''$  starts at  $10^9$  Pa at  $10^0$  °C, peaks at  $10^9$  Pa around  $10^1$  °C, and then decreases to  $10^8$  Pa at  $10^2$  °C.

Figure 12: Plot of storage modulus  $E'$  and loss modulus  $E''$  versus temperature for ED series. The plot shows two curves: a solid line for  $E'$  and a dashed line for  $E''$ . The x-axis is Temperature (°C) on a logarithmic scale from  $10^0$  to  $10^2$ . The y-axis is Modulus (Pa) on a logarithmic scale from  $10^9$  to  $10^{10}$ .  $E'$  starts at  $10^{10}$  Pa at  $10^0$  °C and decreases to  $10^9$  Pa at  $10^2$  °C.  $E''$  starts at  $10^9$  Pa at  $10^0$  °C, peaks at  $10^9$  Pa around  $10^1$  °C, and then decreases to  $10^8$  Pa at  $10^2$  °C.

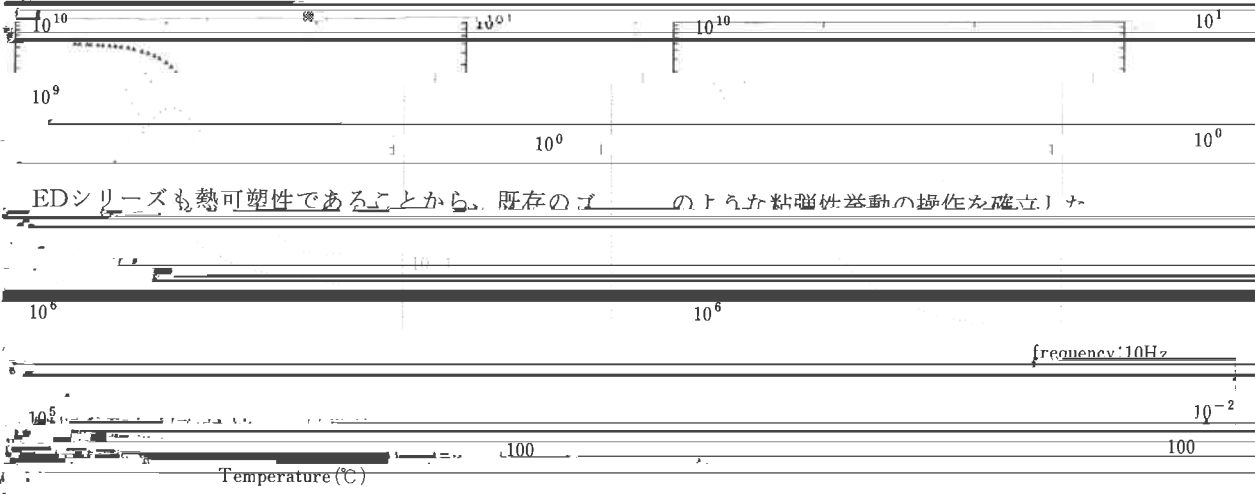


Fig. 12. Plot of storage modulus  $E'$  and loss modulus  $E''$  versus temperature for ED series.

EDシリーズも熱可塑性であることから、既存の加工方法の適用が困難なため、粘弾性挙動の操作を確立し、加工性を向上させることが必要である。図12は、EDシリーズの貯蔵弾性率  $E'$  と損失弾性率  $E''$  の温度依存性を示す。貯蔵弾性率  $E'$  は、10°Cから100°Cまで低下し、損失弾性率  $E''$  は、10°Cでピークを示す。この結果、EDシリーズは熱可塑性材料であり、加工性を向上させることが必要である。





