

## HPLC Syringes

### Hitachi L-7200/L-7250/AS2000/AS42000

Manufactured by ILS



Volume Scale May Vary

Plunger:	Special stainless steel plunger with PTFE-seal
Glass Barrel:	Borosilicate 3.3
Precision:	< ±1% of the volume

#### Physical and Chemical Properties of Glass

Coefficient of mean linear thermal expansion $\alpha$ (20°C; 300°C) acc. to ISO 7991		$3.3 \cdot 10^{-6} \text{K}^{-1}$
Transformation temperature $T_g$		525°C
Glass temperature at viscosity $\eta$ in dPa · s:	10 <sup>13</sup> (annealing point)	560°C
	10 <sup>7.6</sup> (softening point)	852°C
	10 <sup>4</sup> (working point)	1260°C
Maximum short-time working temperature		500°C
Density $\rho$ at 25°C		2.23 g · cm <sup>-3</sup>
Modulus of elasticity E (Young's modulus)		64 · 10 <sup>3</sup> N · mm <sup>-2</sup>
Poisson's ratio $\mu$		0.20
Thermal conductivity $\lambda_w$ at 90°C		1.2 W · m <sup>-1</sup> · K <sup>-1</sup>
Temperature for the specific electrical resistance of 10 <sup>8</sup> Ω · cm (DIN 52326) $t_{k100}$		250°C
Logarithm of the electric volume resistivity (Ω · cm)	at 250°C	8
	at 350°C	6.5
Dielectric properties (1 MHz, 25°C)		
Dielectric constant (permittivity) $\epsilon$		4.6
Dielectric loss factor (dissipation factor) $\tan \delta$		37 · 10 <sup>-4</sup>
Refractive index ( $\lambda = 587.6$ nm) $n_d$		1.473
Stress-optical coefficient (DIN 52314) k		4.0 · 10 <sup>-6</sup> mm <sup>2</sup> · N <sup>-1</sup>

Reference: Schott Duran®