

Heat-Soak-Test

Comparison between DIN 18 516/4, standard draft EN 14179-1 and Bauregelliste 2002/1, Anlage 11.4 *

1. Production

DIN 18 516/4
valid since 02/1990

standard draft prEN 14179-1
dated 12/2001

Bauregelliste Ausg. 2002/1, Anlage 11.4
valid since 08/2002 only for Germany

1.1 Heating-up phase

- starting of heating phase	no figures available	as the entire glass has ambient temperature	no figures available
- temperature gradient	no figures available	no figures available	max. 2 K/min
- air temperature inside oven	no figures available	might exceed 320°C	no figures available
- max. temperature at glass	no figures available	might not exceed 320°C; 300°C might be exceeded for short time	might not exceed 320°C; 300°C might be exceeded for short time
- end of heating-up phase	no figures available	as the surface temperatur of the last glass sheet has reached 280°C	as the entire glass bulk has reached a temperature of at least 280°C

1.2 Holding phase

- holding time	8 hours	2 hours theoretically	at least 4 hours (theoretically)
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- temperature range	(290±10) °C average oven temp.	surface temperature of the glass within a range of 290°C± 10°C	the glass bulk must not short time exceed or fall below a range of 280 to 320°C, preferred range: 290 to 300°C
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1.3 Cooling-down phase

- start	no figures available	after finish of holding phase	after finish of holding phase
- finish	no figures available	as air temperature inside oven has reached 70°C	no figures available
- temperature gradient	no figures available	no figures available	no figures available



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2. Certification/calibration

The HST-oven is calibrated acc. to glass temp. and operated acc. to air temp.
This results in prolonging of holding time for the period between reaching of nominal air temperature and the time in which the last glass sheet has reached 280°C.

The exact nominal air temp. and prolonging of holding time is decided by the calibrator.

- recommended sheet distance	no figures available	20 mm	20 mm
- level of load	no figures available	10% load 100% load	minimum load maximum load
- measuring points for surface temperature	no figures available	acc. to figures A2 to A9 20 measurement points	at critical points
- start of calibration	no figures available	air temperature must not exceed 35°C	no figures available
- recording of following parameters	no figures available	<ul style="list-style-type: none"> - temperature control element - time, after reaching 280°C by the last thermocouple - maximum temperature of the control element during heating-up phase - temperature of glass surfaces 	<ul style="list-style-type: none"> - all essential oven data (temp.-time diagram of circulating air, position of thermocouples etc.) - description of minimum and maximum load conditions - initial test and regular outside monitoring by an approved certification body

*)
DIN 18 516/4 = outside wall curtains rear ventilated single sheet safety glass, requirements/dimensioning/test

standard draft prEN14179-1 = glass in civil construction; heat soaked thermally toughened soda lime silicate safety glass

Bauregelliste Ausgabe 2002/1; Anlage 11.4 = rules for production of heat soaked single sheet safety glass (ESG-H)