

BUILDING MASTERPLAN

Fire-reserve quick-sizer (SANS 10400-T).

First-cut fire-reserve sizing for masterplan stage. Building class → roof type → height → reserve volume and pump flow. The registered engineer's signed calculation remains required for the build.

Reading the table

These figures are derived from SANS 10400-T and SANS 10090 community-protection categories, for a single design fire on a single building. Properties with multiple sleeping clusters or a separated entertainment area should add the two largest reserves and adopt the sum.

Building class	Roof	Height	Fire reserve (m ³)	Flow (L/s)	Duration (min)
A2 (assembly)	Non-combustible	≤ 6 m	30	20	30
A2 (assembly)	Non-combustible	≤ 12 m	60	30	60
A3 (sleeping)	Non-combustible	≤ 6 m	30	20	60
A3 (sleeping)	Non-combustible	≤ 12 m	60	30	60
A3 (sleeping)	Thatched	≤ 6 m	60	30	60
A3 (sleeping)	Thatched	≤ 12 m	90–120	30	90
E1/E2 (hosp.)	Non-combustible	≤ 6 m	60	30	60
E1/E2 (hosp.)	Non-combustible	≤ 12 m	120	40	90

Reference: SANS 10400-T (Fire Protection); SANS 10287 (Fire Pump Sets); SANS 10090 (Community Protection Against Fire).