Sugar Season KPIs: Crush Rate, Lost Time and Capacity Use

Crush rate per hour and per day on net time, lost time % and capacity utilisation from cane crushed, season days, stoppage hours and rated capacity.

Method: Definitions on season data

Input parameters

Unit system: SI

Parameter	Value	Unit
Cane crushed	600,000	t
Season duration	140.00	d
Stoppage time	250.00	h
Rated capacity	5,000.0	t/d

Calculated results

Parameter	Value	Unit
Crush rate on net time	192.93	t/h
Daily crush on net time	4,630.2	t/d
Lost time	7.4405	%
Capacity utilisation (average day / rated)	85.714	%

Formula and method

$$TCH = \frac{C_s}{D - t_s}, \quad LT = \frac{t_s}{D}, \quad CU = \frac{C_s / D}{TCD_r}$$

Variables

C_s	Cane crushed	kg
D	Season duration	s
t_s	Stoppage time	s
TCD_r	Rated capacity	kg/s
TCH	Crush rate on net time	kg/s
TCD	Daily crush on net time	kg/s
LT	Lost time	-
CU	Capacity utilisation (average day / rated)	-

Method and standards

Definitions.

Assumptions and limits

- Season totals: cane crushed, the season from start to end, and all stoppages in it.
- Capacity utilisation is the average day over the whole season against the rating; above 100 % is flagged.

References

- Definitions on season data

Report details

Report reference	FCC-1AF4-73G3 (the same inputs always give the same reference)
Generated	17 November 2026, 19:50 UTC
Calculator	Sugar Season KPIs: Crush Rate, Lost Time and Capacity Use
Method last reviewed	13 November 2026
Software release	FireCAD Calc, release of 17 November 2026
Release checks	2 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/sugar-ethanol/chemical-control/sugar-season-kpis

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.