

CASCADE US

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **39**
- SRM **8.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (54.5%)	79 %	6
Grain	Strzegom Monachijski typ I	1 kg (18.2%)	79 %	16
Grain	Strzegom Wiedeński	1 kg (18.2%)	79 %	10
Grain	Carawheat (GR)	0.5 kg (9.1%)	68 %	79

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Cascade	30 g	10 min	6 %
Boil	Cascade	30 g	0 min	6 %
Whirlpool	Cascade	30 g	5 min	6 %
Dry Hop	Cascade	30 g	5 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale