

Caskader

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **12**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (76.9%)	80 %	5
Grain	Carahell	0.5 kg (7.7%)	77 %	26
Grain	Pszeniczny	0.5 kg (7.7%)	85 %	4
Sugar	Cukier	0.5 kg (7.7%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	50 g	15 min	5.5 %
Aroma (end of boil)	Cascade PL	25 g	0 min	5.5 %
Dry Hop	Cascade PL	25 g	3 day(s)	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	200 ml	---