

Ale co?

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **31**
- SRM **5.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.6 liter(s)**
- Total mash volume **14.2 liter(s)**

Steps

- Temp **66 C**, Time **55 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **10.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **55 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **17.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.6 kg (64.2%)	79 %	5
Grain	Płatki owsiane	0.4 kg (9.9%)	70 %	3
Grain	Strzegom Pilzneński	0.5 kg (12.3%)	70 %	4
Sugar	cukier	0.5 kg (12.3%)	--- %	---
Grain	Strzegom Karmel 300	0.05 kg (1.2%)	70 %	299

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	5 g	60 min	8.7 %
Boil	Summit	10 g	60 min	18 %
Whirlpool	Summit	20 g	0 min	17 %
Whirlpool	Lomik	10 g	0 min	6.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM 21	Ale	Slant	150 ml	---