

Apeusz

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **35**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **45.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **34.6 liter(s)**
- Total mash volume **44.5 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **2 min**

Mash step by step

- Heat up **34.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **76C**
- Sparge using **21.2 liter(s)** of **76C** water or to achieve **45.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8 kg (80.8%)	80 %	5
Grain	Płatki owsiane	1 kg (10.1%)	60 %	3
Grain	cookie	0.4 kg (4%)	80 %	50
Grain	Pszeniczny	0.5 kg (5.1%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	40 g	60 min	13 %
Aroma (end of boil)	Chinook	60 g	3 min	13 %
Dry Hop	Idaho	100 g	3 day(s)	12.7 %
Dry Hop	Sabro	100 g	3 day(s)	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Slant	120 ml	Fermentum Mobile
FM53 Voss kveik	Ale	Liquid	30 ml	Fermentum Mobile