

Ołtajn

- Gravity **27.9 BLG**
- ABV **13.4 %**
- IBU **60**
- SRM **9.8**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **13.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **40 C**, Time **15 min**
- Temp **50 C**, Time **20 min**
- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **42.5C**
- Add grains
- Keep mash **15 min** at **40C**
- Keep mash **20 min** at **50C**
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **-4.2 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (56%)	80 %	5
Grain	Słód owsiany Fawcett	1 kg (16%)	61 %	5
Grain	Płatki owsiane	1 kg (16%)	60 %	3
Grain	Abbey Malt Weyermann	0.5 kg (8%)	75 %	45
Sugar	Milk Sugar (Lactose)	0.25 kg (4%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	25 g	60 min	13 %
Boil	Chinook	25 g	15 min	13 %
Aroma (end of boil)	Fuggles	10 g	10 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis US-05	Ale	Slant	200 ml	Fermentis