

Polskie ale

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **13**
- SRM **4.7**
- Style **Dortmunder Export**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **46.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4.3 liter(s) / kg**
- Mash size **40.9 liter(s)**
- Total mash volume **50.4 liter(s)**

Steps

- Temp **62 C**, Time **10 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **40.9 liter(s)** of strike water to **66.9C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **46.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8.5 kg (89.5%)	80 %	5
Grain	Monachijski	1 kg (10.5%)	80 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Izabella	35 g	60 min	5.1 %
Boil	Saaz (Czech Republic)	50 g	3 min	4.5 %