

Wrocław

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **35**
- SRM **3.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **8.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.1 kg (37.9%)	80 %	5
Grain	Weyermann - Pilsner Malt	0.8 kg (27.6%)	81 %	5
Grain	Weyermann - Vienna Malt	1 kg (34.5%)	81 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	12.4 %
Boil	EXP 2/20	10 g	10 min	7.5 %
Aroma (end of boil)	Izabella	20 g	1 min	7.6 %
Aroma (end of boil)	EXP 2/20	20 g	1 min	7.5 %
Dry Hop	EXP 2/20	15 g	1 day(s)	7.5 %
Dry Hop	Sybilla	10 g	1 day(s)	6.2 %