

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **61**
- SRM **4.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.4 kg (79.1%)	85 %	7
Grain	Monachijski	0.4 kg (9.3%)	80 %	16
Grain	Płatki pszeniczne	0.4 kg (9.3%)	85 %	3
Grain	Weyermann - Carapils	0.1 kg (2.3%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	7.1 %
Boil	East Kent Goldings	17 g	60 min	4.6 %
Boil	Zula	50 g	15 min	9.7 %
Boil	Zula	100 g	5 min	9.7 %