

#41 1/100

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **15**
- SRM **2.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **0 %**
- Size with trub loss **21.5 liter(s)**
- Boil time **50 min**
- Evaporation rate **10 %/h**
- Boil size **23.3 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **12.8 liter(s)**

Steps

- Temp **72 C**, Time **80 min**

Mash step by step

- Heat up **10.2 liter(s)** of strike water to **78.5C**
- Add grains
- Keep mash **80 min** at **72C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.3 kg (50.8%)	81 %	4
Grain	Żytni	0.56 kg (21.9%)	85 %	8
Grain	Pszeniczny	0.7 kg (27.3%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	10 g	20 min	4 %
Boil	Cascade	20 g	20 min	6.9 %
Dry Hop	Galaxy	10 g	---	15 %
Dry Hop	Citra	10 g	---	12 %
Dry Hop	Cascade	10 g	---	6.9 %