

Amerykańskie lekko żytnie

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **82**
- SRM **4.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.6 liter(s)**
- Total mash volume **12.8 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **9.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.2 kg (68.8%)	80 %	5
Grain	Pszeniczny	0.5 kg (15.6%)	85 %	4
Grain	Żytni	0.5 kg (15.6%)	85 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	30 g	60 min	8.9 %
Whirlpool	Citra	20 g	15 min	14.2 %
Whirlpool	Mosaic	20 g	15 min	11.8 %
Whirlpool	Simcoe	20 g	15 min	12.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	10 g	Fermentis