

lekkie ale żytnie

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **24**
- SRM **5.3**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **6 %**
- Size with trub loss **17.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **62 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **68 C**, Time **30 min**
- Temp **74 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **74C**
- Keep mash **10 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	1 kg (27.8%)	80 %	16
Grain	Pilzneński	1.5 kg (41.7%)	81 %	4
Grain	Żytni	0.7 kg (19.4%)	85 %	8
Grain	Strzegom Karmel 30	0.4 kg (11.1%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga	5 g	75 min	11 %
Boil	lunga	10 g	60 min	11 %
Whirlpool	Cascade PL	50 g	1 min	1 %
Dry Hop	Galaxy	30 g	3 day(s)	15 %
Dry Hop	Cascade PL	50 g	3 day(s)	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale