

Polskie żyto

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **33**
- SRM **3.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **14.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **17.9 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **13.9 liter(s)**

Steps

- Temp **69 C**, Time **70 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **69C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **17.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	2.8 kg (90.9%)	81 %	4
Grain	Żytni	0.28 kg (9.1%)	85 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	60 g	3 min	7.1 %
Boil	lunga	9 g	50 min	11 %
Boil	lunga	10 g	10 min	11 %