

# ALE ŻYTO

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **27**
- SRM **5.6**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **25 min**

## Mash step by step

- Heat up **19 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **25 min** at **78C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.5 kg (30%)	81 %	4
Grain	Żytni	1.5 kg (30%)	85 %	8
Grain	Pszeniczny	1 kg (20%)	85 %	4
Grain	Simpsons - Caramalt Light	1 kg (20%)	76 %	26

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	domowy 2022	30 g	60 min	3 %
Aroma (end of boil)	domowy 2022/2023	30 g	30 min	3 %
Aroma (end of boil)	domowy 2022/2023	30 g	15 min	3 %
Aroma (end of boil)	domowy 2022/2023	30 g	5 min	3 %
Whirlpool	domowy 2022/2023	50 g	15 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	11 g	---