

# Pierwsze Październik 2020

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **22**
- SRM **4.2**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **62 C**, Time **35 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **35 min** at **62C**
- Keep mash **25 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.5 kg (77.8%)	81 %	4
Grain	Monachijski	0.5 kg (11.1%)	80 %	16
Grain	Żytni	0.5 kg (11.1%)	85 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	60 min	5.6 %
Boil	Marynka	10 g	15 min	6.5 %
Boil	Tradition	10 g	15 min	4.3 %
Aroma (end of boil)	Tradition	20 g	5 min	4.3 %
Aroma (end of boil)	Lublin (Lubelski)	10 g	5 min	5.6 %

## Yeasts

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