

# Dziesiątkowe Wariacje I

- Gravity **10.1 BLG**
- ABV ---
- IBU **46**
- SRM **10.2**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **21.7 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

## Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **8.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **21.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	0.6 kg (20.7%)	81 %	4
Grain	Strzegom Monachijski typ II	1.8 kg (62.1%)	79 %	22
Grain	Melanoiden Malt	0.5 kg (17.2%)	80 %	39

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Polaris	5 g	60 min	20 %
Boil	Tradition	15 g	60 min	5.9 %
Boil	Tradition	15 g	20 min	5.9 %
Boil	Polaris	5 g	20 min	20 %
Aroma (end of boil)	Lubelski	10 g	5 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
S23	Lager	Dry	11 g	---