

# własny chmiel

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **33**
- SRM **4**

## Batch size

- Expected quantity of finished beer **49 liter(s)**
- Trub loss **5 %**
- Size with trub loss **51.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **73.3 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **42 liter(s)**
- Total mash volume **54 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **42 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **43.3 liter(s)** of **76C** water or to achieve **73.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Płatki owsiane	1 kg (8.3%)	85 %	3
Grain	Strzegom Monachijski typ I	1 kg (8.3%)	78 %	16
Grain	Viking Pilsner malt	5 kg (41.7%)	80 %	4
Grain	Viking Pale Ale malt	5 kg (41.7%)	79 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	100 g	60 min	6.8 %
Boil	Lublin (Lubelski)	50 g	60 min	2.8 %
Dry Hop	Saaz (Czech Republic)	50 g	7 day(s)	4.5 %
Dry Hop	mix własnych chmieli	100 g	7 day(s)	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
s-23	Lager	Dry	23 g	---