

# Polskie chmiele

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **43**
- SRM **5.1**

## Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **47.6 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30.5 liter(s)**
- Total mash volume **40.6 liter(s)**

## Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **30.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **27.3 liter(s)** of **76C** water or to achieve **47.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8.5 kg (83.7%)	80 %	5
Grain	Weyermann Caramunich 3	0.15 kg (1.5%)	76 %	150
Grain	Pszeniczny	1.5 kg (14.8%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	100 g	20 min	5.3 %
Aroma (end of boil)	Lublin (Lubelski)	50 g	2 min	4 %
Dry Hop	Oktawia	100 g	3 day(s)	7.1 %
Dry Hop	Izabella	100 g	3 day(s)	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Us05	Ale	Slant	300 ml	---