

# Polski Bitter

- Gravity **11.9 BLG**
- ABV ---
- IBU **49**
- SRM **6.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.3 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **0 min** at **76C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.5 kg (81.4%)	79 %	6
Grain	Strzegom Monachijski typ I	0.5 kg (11.6%)	79 %	16
Grain	Strzegom Karmel 30	0.3 kg (7%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	8 %
Boil	Lublin (Lubelski)	50 g	25 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	50 g	5 min	4 %
Dry Hop	Lublin (Lubelski)	50 g	5 day(s)	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis