

# Polish Pale Ale na polskich chmielach nowofalowych

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **40**
- SRM **3.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **7.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1 kg (40%)	81 %	4
Grain	Viking Pale Ale malt	1 kg (40%)	80 %	5
Grain	Płatki owsiane	0.25 kg (10%)	60 %	3
Grain	Rice, Flaked	0.25 kg (10%)	70 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	60 min	11 %
Boil	lunga	10 g	10 min	11 %
Boil	Oktawia	5 g	10 min	7.1 %
Whirlpool	Cascade PL	20 g	10 min	5.5 %
Dry Hop	Cascade PL	30 g	5 day(s)	5.5 %
Dry Hop	Oktawia	20 g	5 day(s)	7.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis