

# Polish Pale Ale konkurs

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **52**
- SRM **3.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (100%)	82 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	60 min	11 %
Whirlpool	Zula	100 g	25 min	8.3 %
Whirlpool	Izabella	50 g	25 min	6.8 %
Dry Hop	Zula	100 g	2 day(s)	8.3 %
Dry Hop	Izabella	50 g	2 day(s)	6.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Liquid	300 ml	White Labs
Iutra	Ale	Dry	11 g	Omega

## Extras

Type	Name	Amount	Use for	Time
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Water Agent	Gips piwowarski	9 g	Mash	60 min
Water Agent	Chlorek Wapnia	3 g	Mash	60 min
Water Agent	Kwas Mlekowy 80%	1.2 g	Mash	0 min

## Notes

- 1,2ml Kwasy mlekowego do 22l Wody do wystadzania.  
Profil wody: Ca - 96.9 \Mg - 4 \Na - 4 \Cl - 56.8 \SO4 - 152.7 \HCO3 - 41  
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