

# Pale ale erl grej

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **35**
- SRM **3.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

## Steps

- Temp **68 C**, Time **68 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **18.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **68 min** at **68C**
- Keep mash **2 min** at **78C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (76.9%)	81 %	4
Grain	Płatki owsiane	1.2 kg (23.1%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	horizon	20 g	30 min	12.9 %
Boil	Simcoe	20 g	5 min	13.2 %
Whirlpool	Cascade PL	20 g	10 min	5.2 %
Whirlpool	Oktawia	20 g	10 min	7.1 %
Dry Hop	Oktawia	30 g	5 day(s)	7.1 %
Dry Hop	Cascade PL	30 g	5 day(s)	5.2 %
Dry Hop	Belma	10 g	5 day(s)	9.4 %
Whirlpool	Sorachi	15 g	5 min	12.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar

## Extras

Type	Name	Amount	Use for	Time
Herb	EarlGrey	30 g	Secondary	1 day(s)

## Notes

- Modyfikacja wody: 4 gr gips, 7 gr NaCl  
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