

# pOwP Royal Beer

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **28**
- SRM **3.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **32.7 liter(s)**

## Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **72 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **79.4C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **32.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński Soufflet	5 kg (83.3%)	81 %	4
Grain	Rice, Flaked	0.5 kg (8.3%)	70 %	2
Grain	Płatki owsiane	0.5 kg (8.3%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	20 g	60 min	9 %
Boil	Oktawia	20 g	5 min	9 %
Aroma (end of boil)	Oktawia	30 g	1 min	9 %
Whirlpool	Oktawia	30 g	30 min	9 %
Dry Hop	Oktawia	50 g	5 day(s)	9 %
Dry Hop	Oktawia	50 g	3 day(s)	9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast 1098 British Ale	Ale	Liquid	200 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Chlorek wapnia	7 g	Boil	60 min
Water Agent	Siarczan wapnia	7 g	Boil	60 min
Fining	Whirlfloc	0.5 g	Boil	10 min
Other	Alfaamylaza	2 g	Primary	3 day(s)

## Notes

- Woda "Oaza" z Biedry:  
HCO - 220  
SO - 36  
Cl - 3  
Ca - 41  
Mg - 24  
Na - 9  
K - 2  
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