

## zecowe 3

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **52**
- SRM **5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

### Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.5 kg (53.8%)	85 %	7
Grain	Weyermann pszeniczny jasny	2 kg (30.8%)	80 %	6
Grain	Weyermann - Carapils	0.5 kg (7.7%)	78 %	4
Grain	Płatki owsiane	0.5 kg (7.7%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	50 min	12.4 %
Boil	Książęcy	15 g	15 min	7.6 %
Boil	Exp 2/20	15 g	15 min	9.3 %
Boil	Zibi	15 g	15 min	12.4 %
Whirlpool	Książęcy	25 g	20 min	7.6 %
Whirlpool	Exp 2/20	25 g	20 min	9.3 %
Whirlpool	Zibi	25 g	20 min	12.4 %
Dry Hop	Książęcy	50 g	3 day(s)	7.6 %

Dry Hop	Exp 2/20	50 g	3 day(s)	9.3 %
Dry Hop	Zibi	50 g	3 day(s)	12.4 %

## Yeasts

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