

## #4 Zest fresh ale

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- Gravity **12.4 BLG**
- ABV ---
- IBU **68**
- SRM **5.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (63.8%)	81 %	4
Grain	Weyermann pszeniczny jasny	1 kg (21.3%)	80 %	6
Grain	Weyermann - Carapils	0.5 kg (10.6%)	78 %	4
Grain	Carared	0.2 kg (4.3%)	75 %	39

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Boil	Chinook	10 g	30 min	13 %
Boil	Mosaic	10 g	30 min	10 %
Boil	Mosaic	10 g	15 min	10 %
Boil	Chinook	10 g	10 min	13 %
Boil	Yellow Sub	10 g	1 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11.5 g	Fermentis
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### Extras

Type	Name	Amount	Use for	Time
Flavor	Zest (grejpfrut oraz cytryna)	75 g	Boil	7 min
Flavor	Zest (grejpfrut oraz cytryna)	75 g	Boil	3 min