

## E IPA

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **20**
- SRM **9.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

### Mash step by step

- Heat up **18.3 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (65.6%)	81 %	4
Grain	Monachijski	1 kg (16.4%)	80 %	16
Grain	Płatki pszeniczne	0.3 kg (4.9%)	85 %	3
Grain	Płatki orkiszowe	0.3 kg (4.9%)	80 %	4
Grain	Strzegom Karmel 150	0.5 kg (8.2%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Blanc	30 g	40 min	8 %
Dry Hop	Citra	30 g	10 day(s)	12 %
Dry Hop	Lublin (Lubelski)	30 g	10 day(s)	4 %
Dry Hop	Cascade PL	20 g	10 day(s)	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M02	Wine	Slant	0.3 ml	Mangrove Jack's
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### Extras

Type	Name	Amount	Use for	Time
Spice	jałowiec	20 g	Secondary	10 day(s)
Flavor	skórki pomarańczy	20 g	Secondary	10 day(s)

### Notes

- Gęstwa po cydrze 300ml  
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