

## Ipa2

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- Gravity **18.4 BLG**
- ABV **8 %**
- IBU **72**
- SRM **8.5**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **29.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.6 liter(s)**
- Total mash volume **32.8 liter(s)**

### Steps

- Temp **55 C**, Time **15 min**
- Temp **62 C**, Time **25 min**
- Temp **68 C**, Time **25 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **24.6 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **25 min** at **62C**
- Keep mash **25 min** at **68C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (54.9%)	80 %	5
Grain	Pilzneński	2 kg (24.4%)	81 %	4
Grain	Strzegom Monachijski typ II	1.5 kg (18.3%)	79 %	22
Grain	Karmelowy Pszeniczny Strzegom	0.2 kg (2.4%)	79 %	130

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	90 min	14 %
Boil	Marynka	10 g	90 min	10 %
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	14 %
Boil	Marynka	10 g	60 min	10 %
Boil	lunga	10 g	60 min	11 %
Boil	Columbus/Tomahawk/Zeus	5 g	10 min	15.5 %

Boil	Marynka	5 g	10 min	10 %
Boil	lunga	10 g	10 min	11 %
Boil	Citra	50 g	5 min	12 %
Boil	Lublin (Lubelski)	20 g	5 min	4 %
Dry Hop	Citra	50 g	14 day(s)	12 %
Dry Hop	Lublin (Lubelski)	15 g	14 day(s)	4 %
Dry Hop	lunga	20 g	14 day(s)	11 %