

## IPA 2

---

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **54**
- SRM **8.3**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **1 %**
- Size with trub loss **28.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **32.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

### Steps

- Temp **60 C**, Time **1 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **24 liter(s)** of strike water to **65C**
- Add grains
- Keep mash **1 min** at **60C**
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **32.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Simpsons - Golden Promise	0.5 kg (8.3%)	81 %	4
Grain	Fawcett - Crystal	0.5 kg (8.3%)	70 %	160

### Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Michigan copper usa	10 g	10 min	10.5 %
Aroma (end of boil)	Strata	10 g	10 min	13.6 %
Aroma (end of boil)	Palisade	10 g	10 min	7.5 %
Aroma (end of boil)	Michigan copper usa	10 g	0 min	10.5 %
Aroma (end of boil)	Strata	10 g	0 min	13.6 %
Aroma (end of boil)	Palisade	10 g	0 min	7.5 %
Whirlpool	Michigan copper usa	30 g	80 min	10.5 %
chłodzenie 80stopni				
Whirlpool	Strata	30 g	80 min	13.6 %

chłodzenie 80stopni				
Whirlpool	Palisade	30 g	80 min	7.5 %
chłodzenie 80stopni				
Dry Hop	Michigan copper usa	50 g	4 day(s)	10.5 %
Dry Hop	Strata	50 g	4 day(s)	13.6 %
Dry Hop	Palisade	50 g	4 day(s)	7.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	250 ml	Fermentis