

## #38 TIPA

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- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **120**
- SRM **8.2**
- Style **Imperial IPA**

### Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **57 liter(s)**

### Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **49.5 liter(s)**
- Total mash volume **66 liter(s)**

### Steps

- Temp **55 C**, Time **0 min**
- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **49.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **0 min** at **55C**
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **24 liter(s)** of **76C** water or to achieve **57 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Fawcett - Maris Otter Pale Ale	12 kg (72.7%)	80 %	6
Grain	Weyermann - Pale Wheat Malt	2 kg (12.1%)	82 %	5
Grain	Weyermann - Munich I	2 kg (12.1%)	80 %	16
Grain	Castlemalting - Cara Gold	0.5 kg (3%)	78 %	120
Sugar	Corn Sugar (Dextrose)	0 kg	100 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	100 g	60 min	13.5 %
Boil	Columbus/Tomahawk/Zeus	100 g	25 min	15.5 %
Boil	Simcoe	50 g	20 min	13.2 %
Boil	Citra	50 g	15 min	12 %
Aroma (end of boil)	Centennial	50 g	10 min	10.5 %

Aroma (end of boil)	Ahtanum	50 g	5 min	5 %
Aroma (end of boil)	Amarillo	50 g	2 min	9.5 %
Aroma (end of boil)	Simcoe	100 g	0 min	13.2 %
Dry Hop	Amarillo	100 g	12 day(s)	9.5 %
Dry Hop	Simcoe	100 g	12 day(s)	13.2 %
Dry Hop	Citra	50 g	7 day(s)	12 %
Dry Hop	Centennial	50 g	7 day(s)	10.5 %
Dry Hop	Amarillo	50 g	7 day(s)	9.5 %
Dry Hop	Simcoe	50 g	7 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	46 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Chlorek wapnia	12 g	Boil	80 min
Water Agent	Gips piwowarski	8 g	Boil	80 min
Fining	Whirfloc T	5 g	Boil	15 min
Other	Pożywka dla drożdży	15 g	Boil	10 min