

#38 TIPA

- 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 |