

## #112 Tach!

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **38**
- SRM **4.3**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **19.2 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **21.6 liter(s)**

### Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.3 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **75.6 C**, Time **1 min**

### Mash step by step

- Heat up **17 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **1 min** at **75.6C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

### Fermentables

| Type  | Name                  | Amount          | Yield | EBC |
|-------|-----------------------|-----------------|-------|-----|
| Grain | Pale Ale Choice Crisp | 4.15 kg (78.3%) | 80 %  | 4   |
| Grain | Wheat malt Crisp      | 0.75 kg (14.2%) | 81 %  | 6   |
| Grain | Platki owsiane        | 0.4 kg (7.5%)   | 60 %  | 3   |

### Hops

| Use for   | Name                  | Amount | Time   | Alpha acid |
|-----------|-----------------------|--------|--------|------------|
| Boil      | Cascade US 2019       | 5 g    | 30 min | 8.3 %      |
| Boil      | Nelson Sauvín NZ 2020 | 5 g    | 30 min | 10.1 %     |
| Whirlpool | Cascade US 2019       | 45 g   | 10 min | 8.3 %      |
| Whirlpool | Nelson Sauvín NZ 2020 | 45 g   | 10 min | 10.1 %     |
| Whirlpool | Mosaic US 2020        | 50 g   | 10 min | 12.8 %     |

### Yeasts

| Name                 | Type | Form   | Amount | Laboratory       |
|----------------------|------|--------|--------|------------------|
| FM55 Zielone Wzgórze | Ale  | Liquid | 30 ml  | Fermentum Mobile |