

## #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