

## New Begining

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **29**
- SRM **4.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop Pale Ale	5 kg (95.2%)	79 %	6
Grain	Wheat, Torrified	0.25 kg (4.8%)	79 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	60 min	15.5 %
Boil	Citra	15 g	5 min	12 %
Boil	Mosaic	10 g	5 min	10 %
Aroma (end of boil)	Citra	15 g	0 min	12 %
Aroma (end of boil)	Mosaic	10 g	0 min	10 %
Dry Hop	Citra	20 g	5 day(s)	12 %
Dry Hop	Mosaic	30 g	5 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	100 ml	Fermentum Mobile