

New Begining

- 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 |