

Full Aroma Hops

- Gravity **11.9 BLG**
- ABV ---
- IBU **25**
- SRM **3.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **40 C**, Time **0 min**
- Temp **61 C**, Time **10 min**
- Temp **71 C**, Time **45 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **0 min** at **40C**
- Keep mash **10 min** at **61C**
- Keep mash **45 min** at **71C**
- Keep mash **10 min** at **75C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------|-------------|-------|-----|
| Grain | Pilzneński | 4 kg (100%) | 81 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|----------|------------|
| Boil | Fusion UK | 30 g | 60 min | 4.57 % |
| Boil | Fusion UK | 30 g | 15 min | 4.57 % |
| Dry Hop | Fusion UK | 30 g | 7 day(s) | 4.57 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|---------|------------|
| Safale S-04 | Ale | Dry | 10.95 g | Safale |