

Pale Ale

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **3.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **26.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

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

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **26.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | Soufflet Pilznieński | 4 kg (70.2%) | 80 % | 4 |
| Grain | Weyermann - Spelt Malt | 0.7 kg (12.3%) | 81 % | 6 |
| Grain | Płatki pszeniczne | 0.5 kg (8.8%) | 85 % | 3 |
| Grain | Rye, Flaked | 0.5 kg (8.8%) | 78.3 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|----------|------------|
| Boil | Magnum PL | 20 g | 60 min | 12.9 % |
| Aroma (end of boil) | Galaxy | 15 g | 5 min | 15.5 % |
| Whirlpool | Galaxy | 60 g | 0 min | 15.5 % |
| Dry Hop | Galaxy | 90 g | 5 day(s) | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |