

Pipa77

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **55**
- SRM **4.7**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (44.4%) | 80 % | 5 |
| Grain | pilzeński | 2 kg (44.4%) | 81 % | 4 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (11.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Magnum | 20 g | 60 min | 13.5 % |
| Boil | Magnum | 20 g | 30 min | 13.5 % |
| Dry Hop | Sybilla | 100 g | 7 day(s) | 7 % |
| Dry Hop | Magnum | 100 g | 7 day(s) | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 30 ml | Fermentum Mobile |