

PA nawinie wl.

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **33**
- SRM **4.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **64 C**, Time **60 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|------------|-------|-----|
| Grain | Viking Pale Ale malt | 1 kg (20%) | 80 % | 5 |
| Grain | Strzegom Pilzneński | 2 kg (40%) | 80 % | 4 |
| Grain | Strzegom Wiedeński | 2 kg (40%) | 79 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Tettnang | 30 g | 60 min | 3.8 % |
| Boil | Cascade | 15 g | 45 min | 7.1 % |
| Boil | Mosaic | 10 g | 30 min | 12.1 % |
| Aroma (end of boil) | Cascade | 20 g | 0 min | 10 % |
| Dry Hop | Mosaic | 25 g | 4 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |