

PAPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **38**
- SRM **4.2**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.5 kg (45.5%) | 80 % | 5 |
| Grain | Strzegom Pilzneński | 3 kg (54.5%) | 80 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Oktawia | 35 g | 60 min | 6.9 % |
| Boil | Oktawia | 25 g | 20 min | 6.9 % |
| Boil | Oktawia | 25 g | 2 min | 6.9 % |
| Aroma (end of boil) | Cascade | 30 g | 0 min | 7.9 % |
| Dry Hop | Cascade | 50 g | 7 day(s) | 7.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 100 ml | Fermentis |