

BPA

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **33**
- SRM **11.8**
- Style **Belgian Pale Ale**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **13.2 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **12.3 liter(s)**

Steps

- Temp **64 C**, Time **25 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **9.8 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **25 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **5.9 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 0.8 kg (32.7%) | 80 % | 4 |
| Grain | Specjal B - Castle | 0.15 kg (6.1%) | 80 % | 280 |
| Grain | Strzegom Wiedeński | 0.15 kg (6.1%) | 79 % | 10 |
| Grain | Fawcett - Dark Crystal | 0.05 kg (2%) | 71 % | 300 |
| Grain | Viking Pale Ale malt | 1.3 kg (53.1%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Magnum | 12.5 g | 30 min | 12 % |
| Boil | Marynka | 15 g | 5 min | 8.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------------|
| FM21 Odkrycie sezonu | Ale | Slant | 80 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------|--------|---------|--------|
| Water Agent | Whirlfloc T | 1 g | Boil | 15 min |