

BPA RED

- Gravity **14.2 BLG**
- ABV ---
- IBU **25**
- SRM **12.6**
- Style **Belgian Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **6.5 %/h**
- Boil size **23 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.9 liter(s)**

Steps

- Temp **66 C**, Time **1 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **70C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **1 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **23 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Karmel 600 | 0.05 kg (1%) | 68 % | 600 |
| Grain | Pale Ale | 3 kg (61.9%) | 80 % | 4 |
| Grain | Pilznieński | 0.8 kg (16.5%) | 81 % | 4 |
| Grain | Weyermann - Melanoiden Malt | 0.2 kg (4.1%) | 81 % | 80 |
| Grain | Melanoiden Malt | 0.8 kg (16.5%) | 80 % | 39 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Saaz (Czech Republic) | 5 g | 80 min | 4.5 % |
| Boil | Challenger | 4 g | 80 min | 7 % |
| Boil | Brewers Gold | 4 g | 80 min | 7.6 % |
| Boil | Kent Goldings | 4 g | 80 min | 5.5 % |
| Boil | połączone reszta | 17 g | 10 min | 6 % |
| Boil | Magnum | 5 g | 80 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
| T-58 | Ale | Dry | 11.5 g | fermentis |