

Pils 1. 2019

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **31**
- SRM **6**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **52 C**, Time **20 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **21.6 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 4 kg (75.5%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ II | 1 kg (18.9%) | 79 % | 22 |
| Grain | Caramunich® typ I | 0.3 kg (5.7%) | 73 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 9 % |
| Boil | sybilla szyszka uniwersalny | 20 g | 10 min | 6.5 % |
| Boil | Marynka | 10 g | 10 min | 9 % |
| Boil | sybilla szyszka uniwersalny | 30 g | 0 min | 6.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale | Dry | 10 g | Safale |