

Bóbr

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **23**
- SRM **8.3**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **53 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **1 min**

Mash step by step

- Heat up **19.9 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **20 min** at **53C**
- Keep mash **30 min** at **64C**
- Keep mash **20 min** at **68C**
- Keep mash **1 min** at **72C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 4.2 kg (73.7%) | 84 % | 4 |
| Grain | Strzegom Monachijski typ II | 1 kg (17.5%) | 82 % | 22 |
| Grain | Strzegom Karmel 30 | 0.4 kg (7%) | 77 % | 30 |
| Grain | Strzegom Czekoladowy jasny | 0.1 kg (1.8%) | 70 % | 400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 8 g | 60 min | 10 % |
| Boil | Marynka | 5 g | 50 min | 10 % |
| Boil | Citra | 20 g | 10 min | 12 % |
| Boil | Lublin (Lubelski) | 25 g | 5 min | 4 % |
| Boil | Citra | 5 g | 5 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-------------|-----|-----|--------|-----------|
| Safale S-33 | Ale | Dry | 11.5 g | Fermentis |
|-------------|-----|-----|--------|-----------|