

pierwsze

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **33**
- SRM **11.9**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.2 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (45.8%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 3 kg (45.8%) | 79 % | 16 |
| Grain | Strzegom Karmel 300 | 0.25 kg (3.8%) | 70 % | 400 |
| Grain | Barley, Flaked | 0.3 kg (4.6%) | 70 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 45 g | 60 min | 6.7 % |
| Boil | Lublin (Lubelski) | 15 g | 10 min | 6 % |
| Boil | Lomik | 20 g | 10 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |