

harcerskie

- Gravity **4.6 BLG**
- ABV **1.7 %**
- IBU **13**
- SRM **3.7**
- Style **English IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **64 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.1 liter(s)**
- Total mash volume **8.2 liter(s)**

Steps

- Temp **72 C**, Time **60 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **6.1 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **21.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Weyermann - Pilsner Malt | 1 kg (48.8%) | 81 % | 5 |
| Grain | Pszeniczny | 0.1 kg (4.9%) | 85 % | 4 |
| Grain | Strzegom Monachijski typ I | 0.7 kg (34.1%) | 79 % | 16 |
| Grain | Cara-Pils/Dextrine | 0.2 kg (9.8%) | 72 % | 4 |
| Grain | Strzegom Karmel 150 | 0.05 kg (2.4%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | Cascade | 10 g | 60 min | 6 % |
| Boil | Cascade | 10 g | 15 min | 6 % |
| Whirlpool | Cascade | 10 g | 0 min | 6 % |
| Dry Hop | Cascade | 30 g | 3 day(s) | 6 % |

Yeasts

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