

polska

- Gravity **10.2 BLG**
- ABV ---
- IBU **32**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **14.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 4 kg (82.3%) | 80 % | 4 |
| Grain | Strzegom Wiedeński | 0.5 kg (10.3%) | 79 % | 10 |
| Grain | Strzegom Karmel 30 | 0.25 kg (5.1%) | 75 % | 30 |
| Grain | Karmelowy 50 | 0.11 kg (2.3%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 7.2 % |
| Boil | Lublin (Lubelski) | 20 g | 20 min | 3.7 % |
| Boil | Sybilla | 20 g | 10 min | 4.5 % |
| Boil | Sybilla | 15 g | 5 min | 4.5 % |
| Boil | Lublin (Lubelski) | 15 g | 5 min | 3.7 % |
| Boil | Sybilla | 15 g | 0 min | 4.5 % |
| Boil | Lublin (Lubelski) | 15 g | 0 min | 3.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 10 g | Safale |