

Podporucznik (24)

- Gravity **15.4 BLG**
- ABV ---
- IBU **67**
- SRM **5.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **29.4 liter(s)**

Steps

- Temp **53 C**, Time **10 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **22.4 liter(s)** of strike water to **58.2C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **31.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 3 kg (42.9%) | 80 % | 4 |
| Grain | Strzegom Pale Ale | 3 kg (42.9%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (7.1%) | 79 % | 16 |
| Grain | Pszeniczny | 0.5 kg (7.1%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Marynka | 50 g | 60 min | 10 % |
| Boil | Mosaic | 30 g | 10 min | 10 % |
| Dry Hop | Mosaic | 60 g | 6 day(s) | 12 % |
| Boil | Perle | 30 g | 30 min | 7 % |