

2#

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **29**
- SRM **5.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 3.5 kg (55.6%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 1 kg (15.9%) | 79 % | 16 |
| Grain | Strzegom Wiedeński | 1 kg (15.9%) | 79 % | 10 |
| Adjunct | Pszenica niestodowana | 0.8 kg (12.7%) | 75 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil | Equinox | 20 g | 40 min | 13.1 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 10 g | 10 min | 15.5 % |
| Aroma (end of boil) | Cashmere | 10 g | 10 min | 7 % |
| Whirlpool | Chinook | 30 g | 20 min | 13 % |
| Whirlpool | Equinox | 10 g | 20 min | 13.1 % |
| Dry Hop | Columbus/Tomahawk/Zeus | 20 g | 5 day(s) | 15.5 % |
| Dry Hop | Ahtanum | 30 g | 5 day(s) | 5 % |
| Dry Hop | Cashmere | 20 g | 5 day(s) | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |