

22.10.2023 - warszawa

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **37**
- SRM **3.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **23.8 liter(s)**

Mash information

- Mash efficiency **89 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **14.8 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **11.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Bestt Pale Ale | 3.5 kg (94.6%) | 80.5 % | 6 |
| Grain | Pszeniczny | 0.2 kg (5.4%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Chinook | 10 g | 60 min | 12.1 % |
| Boil | Idaho 7 | 5 g | 60 min | 13.1 % |
| Boil | Idaho 7 | 20 g | 10 min | 13.1 % |
| Aroma (end of boil) | Idaho 7 | 24 g | 1 min | 13.1 % |
| Aroma (end of boil) | Cascade | 20 g | 1 min | 6.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale | Dry | 11 g | Danstar |