

Polskie Ale (Cascade PL)

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **35**
- SRM **5.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **12 %/h**
- Boil size **30.2 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **32.2 liter(s)**
- Total mash volume **38 liter(s)**

Steps

- Temp **20 C**, Time **0 min**
- Temp **66 C**, Time **90 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **32.2 liter(s)** of strike water to **20C**
- Add grains
- Keep mash **0 min** at **20C**
- Keep mash **90 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **3.9 liter(s)** of **76C** water or to achieve **30.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (85.5%) | 80 % | 5 |
| Grain | Strzegom Pszeniczny | 0.5 kg (8.5%) | 81 % | 6 |
| Grain | Viking Dekstrynowy | 0.15 kg (2.6%) | 79 % | 13 |
| Grain | Strzegom Karmel 150 | 0.1 kg (1.7%) | 75 % | 150 |
| Grain | Aromatic Malt | 0.1 kg (1.7%) | 78 % | 51 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| First Wort | Cascade PL | 10 g | 75 min | 8 % |
| Boil | Cascade PL | 10 g | 40 min | 8 % |
| Boil | Cascade PL | 10 g | 30 min | 8 % |
| Boil | Cascade PL | 15 g | 20 min | 8 % |
| Boil | Cascade PL | 15 g | 10 min | 8 % |
| Boil | Cascade PL | 20 g | 5 min | 8 % |
| Aroma (end of boil) | Cascade PL | 20 g | 0 min | 8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| Danstar - Nottingham | Ale | Slant | 150 ml | Danstar |