

Drwalskie Pale Ale

- Gravity **13.1 BLG**
- ABV ---
- IBU **38**
- SRM **9.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **33.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **26.1 liter(s)**

Steps

- Temp **51 C**, Time **15 min**
- Temp **63 C**, Time **20 min**
- Temp **73 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **55.4C**
- Add grains
- Keep mash **15 min** at **51C**
- Keep mash **20 min** at **63C**
- Keep mash **20 min** at **73C**
- Keep mash **5 min** at **77C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **33.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale | 5 kg (86.2%) | 79 % | 6 |
| Grain | Strzegom pszeniczny | 0.5 kg (8.6%) | 81 % | 6 |
| Grain | Strzegom Karmel 150 | 0.3 kg (5.2%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 20 g | 90 min | 15.5 % |
| Boil | Saaz (Czech Republic) | 20 g | 15 min | 4.5 % |
| Boil | Sybilla | 5 g | 15 min | 3.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |