

India pale ale

- Gravity **12.1 BLG**
- ABV ---
- IBU **81**
- SRM **5.1**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **16.3 liter(s)**
- Total mash volume **21.1 liter(s)**

Steps

- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **74 C**, Time **5 min**

Mash step by step

- Heat up **16.3 liter(s)** of strike water to **68.2C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **74C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pale Ale | 3 kg (62.5%) | 80 % | 4 |
| Grain | Strzegom Wiedeński | 1 kg (20.8%) | 79 % | 10 |
| Grain | Pszeniczny | 0.5 kg (10.4%) | 85 % | 4 |
| Grain | Abbey Castle | 0.3 kg (6.3%) | --- % | 50 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Warrior | 30 g | 60 min | 15.5 % |
| Boil | Equinox | 20 g | 60 min | 13.4 % |
| Aroma (end of boil) | Glacier | 30 g | 5 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|------|-------|--------|------------|
| Safale US-05 01.01.2018r | Ale | Slant | 200 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|--------|------------------|------|------|--------|
| Fining | Mech irlandzki | 5 g | Boil | 10 min |
| Flavor | Skórka cytrynowa | 15 g | Boil | 10 min |
| Flavor | Trawa cytrynowy | 5 g | Boil | 10 min |