

cascadeR

- Gravity **14 BLG**
- ABV ---
- IBU **66**
- SRM **4.4**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **75.5 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **75.5C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|--------------|--------|-----|
| Grain | Weyermann - Pale Ale | 1.6 kg (32%) | 82.5 % | 6.5 |
| Grain | Weyermann - Pilsnenski | 1.3 kg (26%) | 81 % | 2.5 |
| Grain | Weyermann - Carapils | 0.5 kg (10%) | 72 % | 3.9 |
| Grain | Pszeniczny | 0.3 kg (6%) | 84 % | 3.9 |
| Grain | Ryż | 1.3 kg (26%) | 70 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Cascade | 40 g | 60 min | 8.1 % |
| Boil | Cascade | 20 g | 30 min | 8.1 % |
| Boil | Cascade | 25 g | 15 min | 8.1 % |
| Boil | Cascade | 15 g | 1 min | 8.1 % |
| Dry Hop | Cascade | 80 g | 4 day(s) | 8.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 500 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|---------|--------|
| Fining | mech irlandzki | 5 g | Boil | 10 min |
| Water Agent | gips piwowarski | 10 g | Mash | --- |