

Hoppy rye apa

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **31**
- SRM **3.9**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Steps

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

Mash step by step

- Heat up **16.6 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 1.5 kg (36.1%) | 80 % | 5 |
| Grain | Pilzneński | 0.75 kg (18.1%) | 81 % | 4 |
| Grain | Pszeniczny | 1.2 kg (28.9%) | 85 % | 4 |
| Grain | Żytni | 0.5 kg (12%) | 85 % | 8 |
| Grain | Carahell | 0.2 kg (4.8%) | 77 % | 26 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|-----------|------------|
| Boil | Magnat | 25 g | 50 min | 11.2 % |
| Dry Hop | Amarillo | 50 g | 14 day(s) | 9.5 % |
| Dry Hop | Equanot | 50 g | 14 day(s) | 12.5 % |
| Dry Hop | Galaxy | 50 g | 14 day(s) | 16.5 % |
| Dry Hop | Polaris | 50 g | 14 day(s) | 19.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew S-33 | Ale | Dry | 11 g | Fermentis |