

Rye Pale Ale

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **33**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.2 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **69 C**, Time **45 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **45 min** at **69C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.75 kg (82.6%) | 80 % | 5 |
| Grain | Žytni | 1 kg (17.4%) | 85 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Magnum | 20 g | 60 min | 13.5 % |
| Boil | Motueka | 25 g | 10 min | 7 % |
| Boil | Motueka | 25 g | 0 min | 7 % |
| Dry Hop | Galaxy | 100 g | 3 day(s) | 15 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |