

test

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **44**
- SRM **8.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **2 %**
- Size with trub loss **23.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **23.1 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.6 liter(s)** of strike water to **75.5C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (90.9%) | 80 % | 5 |
| Grain | Strzegom Karmel 150 | 0.5 kg (9.1%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Centennial | 15 g | 60 min | 10.5 % |
| Boil | Centennial | 35 g | 30 min | 10.5 % |
| Aroma (end of boil) | Centennial | 40 g | 0 min | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale | Dry | 11 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------|--------|---------|--------|
| Fining | Whirlfloc | 1.2 g | Boil | 5 min |
| Water Agent | gips | 7 g | Mash | 60 min |