

APAcz

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **39**
- SRM **6.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **19.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.2 liter(s)**
- Total mash volume **18.2 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **14.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **19.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 3 kg (74.1%) | 80 % | 4 |
| Grain | Viking Pale Ale malt | 0.5 kg (12.3%) | 80 % | 5 |
| Grain | Weyermann - Carapils | 0.2 kg (4.9%) | 78 % | 4 |
| Grain | Viking Malt Cookie | 0.1 kg (2.5%) | --- % | 50 |
| Grain | Caramunich® typ I | 0.25 kg (6.2%) | 73 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Idaho 7 | 20 g | 40 min | 12.7 % |
| Boil | Sabro | 10 g | 10 min | 13.6 % |
| Aroma (end of boil) | Sabro | 10 g | 2 min | 13.6 % |
| Dry Hop | Sabro | 65 g | 5 day(s) | 13.6 % |
| Dry Hop | Idaho 7 | 30 g | 5 day(s) | 12.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|-------|
| Fining | Mech Irlandzki | 5 g | Boil | 5 min |