

American Bitter

- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **50**
- SRM **5.9**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **2 min** at **78C**
- 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 | Viking Pale Ale malt | 3.8 kg (95%) | 80 % | 5 |
| Grain | Strzegom Karmel 150 | 0.2 kg (5%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Apollo | 15 g | 60 min | 17 % |
| Aroma (end of boil) | Cascade | 20 g | 10 min | 7 % |
| Aroma (end of boil) | Citra | 20 g | 5 min | 12 % |
| Aroma (end of boil) | Summit | 25 g | 3 min | 17 % |

Yeasts

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