

## Sesion apa

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- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **43**
- SRM **3.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.5 kg (83.3%) | 80 %  | 5   |
| Grain | Pszeniczny           | 0.5 kg (16.7%) | 85 %  | 4   |

### Hops

| Use for   | Name                   | Amount | Time     | Alpha acid |
|-----------|------------------------|--------|----------|------------|
| Boil      | Columbus/Tomahawk/Zeus | 5 g    | 30 min   | 16.5 %     |
| Boil      | Cascade                | 20 g   | 20 min   | 7.8 %      |
| Whirlpool | Cascade                | 30 g   | 20 min   | 7.8 %      |
| Dry Hop   | Cascade                | 50 g   | 3 day(s) | 7.8 %      |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 100 g  | ---        |