

## ipa

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **42**
- SRM **8.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **32 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **46 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **29.3 liter(s)**
- Total mash volume **39 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **29.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **26.5 liter(s)** of **76C** water or to achieve **46 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 9 kg (92.3%)   | 80 %  | 5   |
| Grain | Strzegom Karmel 150  | 0.5 kg (5.1%)  | 75 %  | 150 |
| Grain | Aroma CastleMalting  | 0.25 kg (2.6%) | 78 %  | 100 |

### Hops

| Use for | Name       | Amount | Time     | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil    | Citra      | 50 g   | 60 min   | 12 %       |
| Boil    | Cascade PL | 30 g   | 15 min   | 5.2 %      |
| Boil    | Cascade PL | 30 g   | 5 min    | 5.2 %      |
| Dry Hop | Citra      | 50 g   | 4 day(s) | 12 %       |
| Dry Hop | Cascade PL | 25 g   | 4 day(s) | 5.2 %      |

### Yeasts

| Name                          | Type  | Form   | Amount  | Laboratory |
|-------------------------------|-------|--------|---------|------------|
| WLP840 - American Lager Yeast | Lager | Liquid | 89.6 ml | White Labs |