

## #162 ctrl+j

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **4.1**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **14.95 liter(s)**
- Trub loss **7 %**
- Size with trub loss **16.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **18.4 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.3 liter(s)**
- Total mash volume **17.1 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **13.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **77C**
- Sparge using **8.9 liter(s)** of **76C** water or to achieve **18.4 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount         | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Viking Malt pale ale   | 2.5 kg (65.8%) | 80 %  | 5   |
| Grain | Viking Malt pszeniczny | 1 kg (26.3%)   | 81 %  | 5   |
| Grain | Płatki owsiane         | 0.3 kg (7.9%)  | 60 %  | 3   |

### Hops

| Use for             | Name         | Amount | Time     | Alpha acid |
|---------------------|--------------|--------|----------|------------|
| Boil                | Zula PL 2021 | 15 g   | 60 min   | 13.3 %     |
| Aroma (end of boil) | Zula PL 2021 | 15 g   | 1 min    | 13.3 %     |
| Dry Hop             | Zula PL 2021 | 50 g   | 7 day(s) | 8.2 %      |

### Yeasts

| Name                            | Type | Form  | Amount | Laboratory |
|---------------------------------|------|-------|--------|------------|
| Lallemand - LalBrew Verdant IPA | Ale  | Slant | 30 ml  | Lallemand  |