

## #21Po dyżurze

- Gravity **19.8 BLG**
- ABV ---
- IBU **55**
- SRM **6.2**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **26.1 liter(s)**
- Total mash volume **34.8 liter(s)**

### Steps

- Temp **68 C**, Time **90 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **26.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **15 min** at **72C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount        | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 6 kg (69%)    | 80 %  | 5   |
| Grain | Weyermann - Carapils | 0.7 kg (8%)   | 78 %  | 4   |
| Grain | Pszeniczny           | 0.5 kg (5.7%) | 85 %  | 4   |
| Grain | Abbey Malt Weyermann | 0.5 kg (5.7%) | 75 %  | 45  |
| Grain | Płatki pszeniczne    | 0.5 kg (5.7%) | 60 %  | 3   |
| Grain | Płatki owsiane       | 0.5 kg (5.7%) | 60 %  | 3   |

### Hops

| Use for             | Name           | Amount | Time     | Alpha acid |
|---------------------|----------------|--------|----------|------------|
| Boil                | mosaic         | 40 g   | 60 min   | 11 %       |
| Aroma (end of boil) | Nelson Sauvign | 20 g   | 10 min   | 11.3 %     |
| Aroma (end of boil) | Sabro          | 20 g   | 10 min   | 15.8 %     |
| Aroma (end of boil) | Mosaic         | 50 g   | 10 min   | 11 %       |
| Whirlpool           | Nelson Sauvign | 30 g   | 0 min    | 11.3 %     |
| Whirlpool           | Sabro          | 40 g   | 0 min    | 15.8 %     |
| Whirlpool           | mosaic         | 50 g   | 0 min    | 11 %       |
| Dry Hop             | Sabro          | 60 g   | 4 day(s) | 15.8 %     |

|         |                  |      |          |        |
|---------|------------------|------|----------|--------|
| Dry Hop | Nelson Sauvignon | 50 g | 4 day(s) | 11.3 % |
|---------|------------------|------|----------|--------|

## Yeasts

| Name                           | Type | Form | Amount | Laboratory |
|--------------------------------|------|------|--------|------------|
| Lallemand - LalBrew Voss Kveik | Ale  | Dry  | 11 g   | Lallemand  |

## Extras

| Type        | Name            | Amount | Use for | Time    |
|-------------|-----------------|--------|---------|---------|
| Other       | łuska ryżowa    | 300 g  | Mash    | 0 min   |
| Water Agent | gips piwowarski | 5 g    | Mash    | 105 min |