

## Pierwszy strzał

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **46**
- SRM **4.3**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

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

### Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount      | Yield | EBC |
|-------|----------------------|-------------|-------|-----|
| Grain | Viking Pale Ale malt | 6 kg (100%) | 80 %  | 5   |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Simcoe | 20 g   | 60 min | 13.2 %     |
| Boil    | Lotus  | 20 g   | 15 min | 15.1 %     |
| Boil    | Lotus  | 20 g   | 7 min  | 15.1 %     |

### Yeasts

| Name                 | Type | Form   | Amount | Laboratory       |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Liquid | 11 ml  | Fermentum Mobile |