

## w19

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **22**
- SRM **9.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **19.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.6 liter(s)**

### Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **22.7 liter(s)**

### Steps

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

### Mash step by step

- Heat up **17.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **24.6 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt       | 3.6 kg (71.3%) | 80 %  | 5   |
| Grain | Strzegom Monachijski typ I | 1 kg (19.8%)   | 79 %  | 16  |
| Grain | Carared                    | 0.4 kg (7.9%)  | 75 %  | 39  |
| Grain | Jęczmień palony            | 0.05 kg (1%)   | 55 %  | 985 |

### Hops

| Use for | Name        | Amount | Time   | Alpha acid |
|---------|-------------|--------|--------|------------|
| Boil    | Golding     | 30 g   | 60 min | 4.4 %      |
| Boil    | Hersbrucker | 30 g   | 20 min | 3.6 %      |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 100 ml | Fermentis  |