

## American Wheat - podwojna porcja (high gravity brewing)

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- Gravity **20.5 BLG**
- ABV **9 %**
- IBU **28**
- SRM **5.6**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **33 liter(s)**

### Steps

- Temp **44 C**, Time **30 min**
- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22 liter(s)** of strike water to **50C**
- Add grains
- Keep mash **30 min** at **44C**
- Keep mash **45 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **23.2 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 6 kg (54.5%)   | 80 %  | 5   |
| Grain | Pszeniczny           | 3.9 kg (35.5%) | 85 %  | 4   |
| Grain | Pilznieński          | 1 kg (9.1%)    | 81 %  | 4   |
| Grain | Monachijski          | 0.1 kg (0.9%)  | 80 %  | 16  |

### Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil                | Citra    | 24 g   | 60 min   | 12 %       |
| Boil                | Simcoe   | 26 g   | 10 min   | 13.2 %     |
| Boil                | Mosaic   | 26 g   | 5 min    | 10 %       |
| Aroma (end of boil) | Citra    | 24 g   | 0 min    | 12 %       |
| Aroma (end of boil) | Simcoe   | 24 g   | 0 min    | 13.2 %     |
| Aroma (end of boil) | Mosaic   | 24 g   | 0 min    | 10 %       |
| Dry Hop             | Cascade  | 60 g   | 0 day(s) | 6 %        |
| Dry Hop             | Amarillo | 50 g   | 0 day(s) | 9.5 %      |

### Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| <b>Name</b>  | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Wheat       | Dry         | 11.5 g        | Fermentis         |