

## German Ale #2

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **32**
- SRM **5.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20.7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **17 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **29.8 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt  | 5 kg (88.5%)   | 82 %  | 4   |
| Grain | Strzegom Bursztynowy | 0.5 kg (8.8%)  | 70 %  | 49  |
| Grain | Pszeniczny           | 0.15 kg (2.7%) | 85 %  | 4   |

### Hops

| Use for             | Name                 | Amount | Time     | Alpha acid |
|---------------------|----------------------|--------|----------|------------|
| Aroma (end of boil) | Perle                | 50 g   | 0 min    | 5.5 %      |
| Aroma (end of boil) | Hallertau Mittelfruh | 50 g   | 0 min    | 3 %        |
| Dry Hop             | Perle                | 50 g   | 2 day(s) | 5.5 %      |
| Dry Hop             | Hallertau Mittlefruh | 50 g   | 2 day(s) | 3 %        |
| Boil                | Chinook              | 40 g   | 60 min   | 8.5 %      |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale K-97 | Ale  | Dry  | 11.5 g | Fermentis  |