

# Keg

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **31**
- SRM **4.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **37 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **29.6 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **21.6 liter(s)** of strike water to **76.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **15 min** at **78C**
- Sparge using **23.4 liter(s)** of **76C** water or to achieve **37 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (62.5%) | 80 %  | 5   |
| Grain | Strzegom Pszeniczny  | 1 kg (12.5%) | 81 %  | 6   |
| Grain | płatki jęczmienne    | 1 kg (12.5%) | 60 %  | 4   |
| Grain | Płatki owsiane       | 1 kg (12.5%) | 60 %  | 3   |

## Hops

| Use for             | Name               | Amount | Time   | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Aroma (end of boil) | Magnum             | 20 g   | 10 min | 13.5 %     |
| Aroma (end of boil) | East Kent Goldings | 20 g   | 10 min | 5.1 %      |
| Aroma (end of boil) | Styrian Golding    | 20 g   | 10 min | 3.6 %      |
| Aroma (end of boil) | Styrian Golding    | 25 g   | 5 min  | 3.6 %      |
| Aroma (end of boil) | East Kent Goldings | 25 g   | 5 min  | 5.1 %      |
| Aroma (end of boil) | Magnum             | 25 g   | 5 min  | 13.5 %     |
| Whirlpool           | East Kent Goldings | 25 g   | 10 min | 5.1 %      |
| Whirlpool           | Styrian Golding    | 25 g   | 10 min | 3.6 %      |
| Whirlpool           | Magnum             | 25 g   | 10 min | 13.5 %     |
| Whirlpool           | East Kent Goldings | 25 g   | 5 min  | 5.1 %      |
| Whirlpool           | Styrian Golding    | 22 g   | 5 min  | 3.6 %      |

|           |                    |       |          |        |
|-----------|--------------------|-------|----------|--------|
| Whirlpool | Magnum             | 22 g  | 5 min    | 13.5 % |
| Dry Hop   | East Kent Goldings | 100 g | 4 day(s) | 5.1 %  |
| Dry Hop   | Styrian Golding    | 100 g | 4 day(s) | 3.6 %  |
| Dry Hop   | Magnum             | 100 g | 4 day(s) | 13.5 % |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 23 g   | Fermentis  |