

Mars

- Gravity **12.5 BLG**
- ABV ---
- IBU **51**
- SRM **7.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **69 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **5 min** at **76C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 4.3 kg (87.8%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ II | 0.3 kg (6.1%) | 79 % | 22 |
| Grain | Carahell | 0.1 kg (2%) | 77 % | 26 |
| Grain | Pale caramalt | 0.1 kg (2%) | 78 % | 16 |
| Grain | Cara Gold Castlemalting | 0.1 kg (2%) | 78 % | 120 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Chinook | 25 g | 60 min | 13 % |
| Boil | Mosaic | 10 g | 60 min | 12 % |
| Boil | Mosaic | 10 g | 20 min | 12 % |
| Aroma (end of boil) | Cascade | 30 g | 0 min | 6 % |
| Aroma (end of boil) | Citra | 30 g | 0 min | 10 % |
| Aroma (end of boil) | Mosaic | 10 g | 0 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|--------------|-----|-----|--------|-----------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |
|--------------|-----|-----|--------|-----------|