

apa owsiana

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **41**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 5 kg (83.3%) | 80 % | 4 |
| Grain | Słód Honig Viking | 0.5 kg (8.3%) | 80 % | 12 |
| Grain | Żytni | 0.5 kg (8.3%) | 85 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil | Magnum | 30 g | 50 min | 13 % |
| Aroma (end of boil) | Cascade PL | 50 g | 5 min | 5.2 % |
| Dry Hop | Galena | 20 g | 4 day(s) | 12 % |
| Dry Hop | Cascade PL | 10 g | 4 day(s) | 5.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 0.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|-------------|----------------|-------|------|--------|
| Water Agent | płatki owsiane | 300 g | Mash | 70 min |
|-------------|----------------|-------|------|--------|