

ŻLAPA_V3

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **31**
- SRM **4.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **29.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **16.6 liter(s)**

Steps

- Temp **73 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **80.6C**
- Add grains
- Keep mash **60 min** at **73C**
- Keep mash **10 min** at **76C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **29.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 1 kg (27%) | 80 % | 5 |
| Grain | Żytni | 1 kg (27%) | 85 % | 8 |
| Grain | Monachijski Optima | 1 kg (27%) | 78.9 % | 18 |
| Grain | Słód Carahell (R) | 0.3 kg (8.1%) | 75 % | 25 |
| Grain | Płatki owsiane | 0.4 kg (10.8%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|---------|--------|----------|------------|
| First Wort | Iunga | 15 g | 60 min | 11 % |
| Boil | Cascade | 25 g | 5 min | 6.9 % |
| Boil | Citra | 25 g | 5 min | 13.3 % |
| Whirlpool | Cascade | 25 g | 0 min | 6.9 % |
| Whirlpool | Citra | 25 g | 0 min | 13.3 % |
| Dry Hop | Cascade | 30 g | 4 day(s) | 6.9 % |
| Dry Hop | Citra | 30 g | 4 day(s) | 13.3 % |

Yeasts

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

| | | | | |
|--------------------------------|-----|--------|---------|------------|
| WLP090 - San Diego Super Yeast | Ale | Liquid | 1000 ml | White Labs |
|--------------------------------|-----|--------|---------|------------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|--------|
| Fining | Whirlfloc T | 1 g | Boil | 10 min |