

APA v6 #91

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **38**
- SRM **4.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20.7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **85 min**
- Evaporation rate **14 %/h**
- Boil size **27.1 liter(s)**

Mash information

- Mash efficiency **77.4 %**
- Liquor-to-grist ratio **3.85 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **75 C**, Time **7 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **7 min** at **75C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|--------|-----|
| Grain | Mep©Ale | 4.3 kg (82.7%) | 82.2 % | 4.8 |
| Grain | Viking - rye malt | 0.3 kg (5.8%) | 81 % | 8 |
| Grain | płatki owsiane | 0.4 kg (7.7%) | 83 % | 3 |
| Grain | Weyermann - Carabelge | 0.2 kg (3.8%) | 74 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Warrior | 14 g | 60 min | 14.7 % |
| Aroma (end of boil) | Ekuanot | 20 g | 10 min | 13.1 % |
| Aroma (end of boil) | Citra | 15 g | 5 min | 13.5 % |
| Aroma (end of boil) | Mandarina Bavaria | 50 g | 1 min | 9.6 % |
| Dry Hop | Mandarina Bavaria | 40 g | 5 day(s) | 9.6 % |
| Dry Hop | Ekuanot | 20 g | 3 day(s) | 13.1 % |
| Dry Hop | Citra | 15 g | 3 day(s) | 13.5 % |

Yeasts

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

| | | | | |
|-----------------------------|-----|-------|--------|------------------|
| FM54 Gorączka kalifornijska | Ale | Slant | 155 ml | Fermentum Mobile |
|-----------------------------|-----|-------|--------|------------------|

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------------|--------|---------|-------|
| Water Agent | gips | 2 g | Mash | --- |
| Water Agent | kwas mlekowy 80% [ml] | 3.95 g | Mash | --- |
| Water Agent | chlorek wapnia [ml] | 5.14 g | Mash | --- |
| Water Agent | epsom | 1.5 g | Mash | --- |
| Water Agent | mech irlandzki | 3 g | Boil | 5 min |