

IPA v15 #117

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **55**
- SRM **5.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **19.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 min**
- Evaporation rate **21.8 %/h**
- Boil size **27.2 liter(s)**

Mash information

- Mash efficiency **85.1 %**
- Liquor-to-grist ratio **3.88 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.1 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **71.9C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|-----------------|--------|-----|
| Grain | Mep©Ale | 3.2 kg (62.1%) | 82.2 % | 4.8 |
| Grain | Viking - pszeniczny | 0.3 kg (5.8%) | 81 % | 5 |
| Grain | Viking - wiedeński | 0.85 kg (16.5%) | 79 % | 8.6 |
| Grain | Viking - monachijski I | 0.75 kg (14.6%) | 79 % | 16 |
| Grain | Chateau - cara gold | 0.05 kg (1%) | 78 % | 120 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Magnum | 15 g | 60 min | 11.5 % |
| Boil | Columbus | 30 g | 15 min | 15.7 % |
| Aroma (end of boil) | Amarillo | 50 g | 5 min | 8.5 % |
| Aroma (end of boil) | Falconners Flight | 30 g | 1 min | 10.3 % |
| Aroma (end of boil) | Galaxy | 30 g | 1 min | 14.5 % |
| Dry Hop | Amarillo | 50 g | 2 day(s) | 9.5 % |
| Dry Hop | Falconners Flight | 40 g | 2 day(s) | 10.3 % |
| Dry Hop | Galaxy | 20 g | 2 day(s) | 14.5 % |

Yeasts

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------|
| WLP090 - San Diego Super Yeast | Ale | Slant | 460 ml | White Labs |
| 49-dniowa gęstwa | | | | |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------------|--------|----------|--------|
| Water Agent | gips | 4 g | Mash | --- |
| Water Agent | kwas mlekowy 80% [ml] | 5.72 g | Mash | --- |
| Water Agent | chlorek wapnia [ml] | 0 g | Mash | --- |
| Water Agent | epsom | 0.5 g | Mash | --- |
| Water Agent | mech irlandzki | 4 g | Boil | 15 min |
| Water Agent | kwask askorbinowy | 4 g | Bottling | --- |