

Może wyjdzie

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **35**
- SRM **3.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|--------------|--------|-----|
| Grain | Pilzneński | 1.5 kg (30%) | --- % | --- |
| Grain | Simpsons - Best Pale Ale | 3 kg (60%) | 82.5 % | 5 |
| Grain | Briess - Wheat Malt, Red | 0.5 kg (10%) | 81 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 10 g | 40 min | 16.2 % |
| Boil | Azacca | 10 g | 5 min | 13.1 % |
| Aroma (end of boil) | Centennial | 10 g | 5 min | 9 % |
| Aroma (end of boil) | Nelson Sauvín | 10 g | 5 min | 10.7 % |
| Whirlpool | Azacca | 10 g | 30 min | 13.1 % |
| Whirlpool | Ekuanot | 10 g | 30 min | 13.7 % |
| Dry Hop | Galaxy | 30 g | 4 day(s) | 14.2 % |
| Dry Hop | Azacca | 30 g | 4 day(s) | 13.1 % |
| Dry Hop | Simcoe | 40 g | 4 day(s) | 13.2 % |

Yeasts

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

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|--------------------------------------|-----|-----|------|-----|
| Mangrove Jack's M44 US West Coast | Ale | Dry | 10 g | --- |
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