

ENIGMA_

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **117**
- SRM **8.8**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **4 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.3 liter(s)**
- Total mash volume **32.5 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **25.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **76C**
- Sparge using **9.3 liter(s)** of **76C** water or to achieve **27.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|-----------------|--------|-----|
| Grain | Pilzneński | 5 kg (60.8%) | 81 % | 4 |
| Grain | Płatki jęczmienne | 0.88 kg (10.7%) | 85 % | 3 |
| Grain | Briess - Carapils Malt | 0.2 kg (2.4%) | 74 % | 3 |
| Grain | Żytni | 1 kg (12.2%) | 85 % | 8 |
| Grain | Caraaroma | 0.15 kg (1.8%) | 78 % | 400 |
| Sugar | Candi Sugar, Clear | 1 kg (12.2%) | 78.3 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------|--------|----------|------------|
| Boil | Magnum | 70 g | 60 min | 13.5 % |
| Boil | Enigma (AUS) | 10 g | 10 min | 17.2 % |
| Boil | Enigma (AUS) | 10 g | 5 min | 17.2 % |
| Aroma (end of boil) | Enigma (AUS) | 30 g | 0 min | 17.2 % |
| Boil | Marynka | 50 g | 60 min | 10 % |
| Dry Hop | Enigma (AUS) | 50 g | 3 day(s) | 17.2 % |

Yeasts

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

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|-------|-----|-------|--------|-----|
| US 05 | Ale | Slant | 200 ml | --- |
|-------|-----|-------|--------|-----|