

Mroczna Pani 3

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **38**
- SRM **37.9**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **31.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **31.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|----------------|-------|-----|
| Grain | Pale Malt (2 Row) Bel | 2.5 kg (38.5%) | 80 % | 6 |
| Grain | White Wheat Malt | 2 kg (30.8%) | 86 % | 4 |
| Grain | Simpsons - Golden Naked Oats | 1 kg (15.4%) | 73 % | 20 |
| Grain | Weyermann - Dehusked Carafa III | 0.5 kg (7.7%) | 70 % | 950 |
| Grain | Weyermann - Chocolate Rye | 0.5 kg (7.7%) | 20 % | 800 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Bramling | 30 g | 60 min | 6.2 % |
| Boil | Fuggles | 30 g | 30 min | 6.9 % |
| Boil | Fuggles | 20 g | 20 min | 6.9 % |

Yeasts

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

| | | | | |
|--|-----|-----|------|-----------------|
| Mangrove Jack's M42 New World Strong Ale | Ale | Dry | 20 g | Mangrove Jack's |
|--|-----|-----|------|-----------------|