

Griffin Feather

- Gravity **33.9 BLG**
- ABV ---
- IBU **12**
- SRM **53.6**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **14.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **53 C**, Time **12 min**
- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **12 min** at **53C**
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **7.6 liter(s)** of **76C** water or to achieve **14.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|--|---------------|--------|-----|
| Liquid Extract | Liquid Extract (LME) - Pilsner | 3 kg (42.3%) | 78 % | 8 |
| Grain | Caramel/Crystal Malt - 120L | 1 kg (14.1%) | 72 % | 236 |
| Grain | Briess - Munich Malt 10L | 1 kg (14.1%) | 77 % | 20 |
| Grain | Barley, Flaked | 0.6 kg (8.5%) | 70 % | 4 |
| Grain | Barley, Raw | 0.5 kg (7%) | 60.9 % | 4 |
| Grain | Grodziski pszeniczny wędzony dębem | 0.3 kg (4.2%) | 80 % | 3 |
| Grain | Briess - Dark Chocolate Malt | 0.2 kg (2.8%) | 60 % | 827 |
| Sugar | Brown Sugar, Dark | 0.5 kg (7%) | 100 % | 99 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | Perle | 10 g | 45 min | 7 % |

| | | | | |
|------|-------|------|--------|-----|
| Boil | Perle | 10 g | 30 min | 7 % |
| Boil | perle | 10 g | 15 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M44 US West Coast | Ale | Dry | 11 g | Mangrove Jack's |