

Sunderland

- Gravity **11.4 BLG**
- ABV ---
- IBU **25**
- SRM **20.8**
- Style **Northern English Brown Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **17.8 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Simpsons - Maris Otter | 3.4 kg (86.1%) | 81 % | 6 |
| Grain | Brown Malt (British Chocolate) | 0.2 kg (5.1%) | 70 % | 128 |
| Grain | Chocolate Malt (UK) | 0.15 kg (3.8%) | 73 % | 887 |
| Grain | Caramel/Crystal Malt - 10L | 0.2 kg (5.1%) | 75 % | 20 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Progress | 30 g | 60 min | 5.5 % |
| Boil | Golding | 5 g | 15 min | 5 % |
| Boil | Golding | 5 g | 10 min | 5 % |
| Boil | Golding | 5 g | 5 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M03 UK Dark Ale | Ale | Dry | 10 g | Mangrove Jack's |