

93 NUT

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **16**
- SRM **10.5**
- Style **American 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **11.9 liter(s)**
- Total mash volume **17.8 liter(s)**

Steps

- Temp **69 C**, Time **45 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **11.9 liter(s)** of strike water to **81.2C**
- Add grains
- Keep mash **45 min** at **69C**
- Keep mash **5 min** at **77C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Simpsons - Maris Otter | 3.9 kg (65.8%) | 81 % | 6 |
| Grain | Biscuit Malt | 1.3 kg (21.9%) | 79 % | 45 |
| Grain | Oats, Flaked | 0.5 kg (8.4%) | 80 % | 2 |
| Grain | Brown Malt (British Chocolate) | 0.23 kg (3.9%) | 70 % | 128 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil | Northern Brewer | 21 g | 90 min | 7 % |
| Mash | Northdown | 14 g | 20 min | 6.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------|------|--------|--------|------------|
| WLP002 - English Ale Yeast | Ale | Liquid | 10 ml | White Labs |