

Apollo

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **52**
- SRM **6.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|--------|-----|
| Grain | Weyermann - Pale Ale Malt | 3 kg (55.6%) | 85 % | 7 |
| Grain | BESTMALZ - Best Pilsen | 2 kg (37%) | 80.5 % | 4 |
| Grain | Caramel/Crystal Malt - 40L | 0.4 kg (7.4%) | 74 % | 79 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------|--------|--------|------------|
| Boil | Apollo | 30 g | 60 min | 17 % |
| Aroma (end of boil) | Apollo | 75 g | 0 min | 17 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|------|------|--------|------------|
| US West Coast | Ale | Dry | 11 g | Danstar |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------|--------|---------|-------|
| Fining | Irish moss | 4 g | Boil | 5 min |