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The Ratings Composites — Sculptable – Universal

## Clearfil Majesty ES-2 Universal

CLEARFIL MAJESTY ES-2

#### **Manufacturer**

Kuraray Noritake

https://www.kuraraydental.com

#### **Prices**

#### Kits

None

#### **Refills**

Syringe (3.6g)

\$105.93/3.6g (\$29.43/g)

Unidose tips (20)

\$113.14/5g (\$22.63/g or \$5.66 ea)

#### Shelf life

4 years

#### Raves & Rants

- One shade matches most teeth
- Really nice handling
- Doesn't match all teeth
- Not a bulk fill



# Introduction/ Manufacturer's Claims

Described as Intelligent Simplification, Clearfil Majesty ES-2 Universal is the latest entry into the one-shade-matches-all-teeth market. But Kuraray Noritake is being more realistic and honest than most other manufacturers as this product is only being promoted to match posterior teeth for Class I and II restorations. It is stated to be the "go-to solution for common posterior restorations, independent of the color of the underlying and adjacent tooth structure".

And, in taking a jab at one of its competitors, it is claiming that no blocker or opaquer is necessary. This bold claim is due to its translucency and "Light Diffusion Technology (LDT)", which make restorations diffuse light in a similar way tooth structure does. So no more shade guides or shade selection for posterior restorations.

Note: While there is no reason you can't also use it for Class III-V restorations, Kuraray Noritake explicitly acknowledges it may not always hit the mark for these situations. We find it refreshing that a manufacturer actually admits that a product could have certain limitations. This makes its claims even more reassuring.

### Type

Nanohybrid.

### **Average Particle Size**

0.37-1.5 microns.

#### Filler Content

Weight	78%
Volume	66%

### Consistency and Handling

It has minimal stickiness, very little slump, and easy sculpting. Most (77%) evaluators found the handling to be really nice, while the other 23% thought it was about the same as other composites. Some comments:

- Consistency was a little more sticky than Filtek or Cosmedent Hybrid.
- I found that it goes where I want it to go and doesn't move.
- Very easy to sculpt; does not stick to instruments.
   Good texture and consistency.
- I like how it stayed in place and didn't pool or slump.
- For posteriors, it's okay.
- Very nice handling and texture to shape and place.
- I enjoyed working with the material.
- Non-sticky with good viscosity for "packing" or sculpting.

### Volumetric Shrinkage

1.9% (per manufacturer), which is very low for a universal material.

### **Porosity**

After finishing and polishing, we found almost no voids. Most (85%) evaluators also found virtually no voids, while the other 15% had a few voids.

### Depth of Cure

**2.0mm**, which means it is not a bulk fill composite.

# Working Time Under Dental Light

About 60 seconds.

#### Shade

On the lab bench, the shade is similar to A2. Clinically, most (61.5%) evaluators found it matched most teeth, 31% thought it matched about half of the restored teeth, and 7.5% stated it matched all restored teeth. Some comments:

- It seemed to harmonize and blend in better with teeth with higher values. Occasionally with an A3.5 yellow posterior shaded molar, the opacity of the composite would stick out.
- It blended well for most posterior restorations.
   Sometimes didn't transition well at the margins.
- The extremes not so much. Meaning the lighter and the really dark were not the best match.
- You can see it, just used on posteriors, that weren't dark, but matched very well.
- The truth is who cares in posterior restorations? I use A2 for all my posterior restorations!
- Just OK for posteriors. Not OK for anteriors.

When overall posterior esthetics was considered, most (61.5%) evaluators thought it was really nice, while the other 38.5% graded it acceptable.

While 46% of the evaluators only used it for Class I and II restorations, the other 54% also used for Class III-V. Of those who did use it outside of Class I and II, most (57%) thought it was exemplary, while the other 43% found the esthetics was compromised. Some comments:

- Class V restorations were more esthetic, while larger class IVs had less than ideal esthetics.
- I have always found that in class Vs getting the color to blend was always a thorn in my side. Now I just use the Universal and the restorations are almost invisible.
- Only used anteriorly if the preparation is very small.
- CI V was so-so and CI IV was not great. Blockers ARE needed.
- I was very selective where I used it other than in Cl 1 or 2. Did not do any anterior restorations that extended onto the facial.

### Translucency/Opacity

**64.7%**, which is similar to body shades of other systems.

### Radiopacity

Most (87%) evaluators found it to be adequate, while the other 13% thought it was not radiopaque enough.

#### **Fluorescence**

Since it is primarily a posterior restorative, fluorescence is not as important as it would be for an anterior-oriented material, but nevertheless, we found it to be very close to natural teeth.

### Finishing and Polishing

It polishes to a nice gloss with an Occlubrush, which we used since the product is mainly indicated for Class I and II. Most (61.5%) evaluators found it easy to polish to an enamel-like shine, while the other 38.5% were able to come close to an enamel-like shine. Some comments:

- For posterior teeth, the polishability was acceptable.
- Polished very easily.
- I did not use a paste, so it might have been more enamel-like if I did.
- Very nice and easy, with carbides then a brush and white point.

#### **Packaging**

Since this is a single-shade product, there are no kits. Both the syringes and tips come in sealed plastic bags that are difficult to store on a shelf. The bags are imprinted with the shade identification, i.e., universal, and the expiration date. Most (92%) evaluators rated the packaging as acceptable, while the other 8% thought it was exemplary.

The black, screw-type syringes have moisture-resistant labels with the expiration date heat-stamped, while the shade is in a color-coded band near the tip. The shade is also found on the label on both sides of the end of the plunger and on the back end for viewing in a composite caddy. Most (92%) evaluators thought it was acceptable, while the other 8% liked the design.

The tips have a long nose with a ring at the halfway mark that gives the color-coded caps a definitive snap-

off/snap-on closure. The color-coding is orange. The product name, shade, expiration date and lot number are imprinted on the tips themselves.

The ends of the tips are rather large and may not fit very well into a small to medium proximal box. Therefore, you will need to be careful packing this rather thick material onto a gingival wall to prevent voids unless, of course, you use a flowable composite before injecting this material. Most (77%) evaluators thought the tips were acceptable, while 15% really liked them and 8% were not impressed. Some comments:

- Several times the individual tips dislodged from the standard dispensing gun, which was annoying.
- Easy to dispense.
- Tips were different shape than ours and were harder to get into our syringe. We didn't use the enclosed syringe.
- It is difficult to dispense a limited amount of composite.

#### **Directions**

Multi-lingual, plain paper in the annoying foldout format. They include information on the entire spectrum of Clearfil Majesty ES-2 composites, namely the Premium and Classic assortments. While we understand that this type of all-inclusive instructions is more economic, the whole idea around this product is simplification. We would have preferred directions that only are pertinent for this product. In other words, a clinician buying this product doesn't need information on shade matching, which is included in these instructions. There are no photos and illustrations, but the information itself is clear and easy to understand. Most (85%) evaluators found the directions to be acceptable, while the other 15% thought they were exemplary.



### Strengths



- For the majority of cases of class I and II posterior restorations, this is a good go-to composite that takes the shade matching step out of the equation.
   Handling properties (not too runny, not too sticky) and work time of the composite were also strengths.
- An excellent material with very good mechanical and esthetic properties.
- Handling, non-stick, chameleon effect, company has a long history of awesome products.
- Streamline procedures by making shade selection simple; good handling.
- It does match pretty well in the posterior teeth. Handling is good, easy to place, no voids.
- One shade, universal. Polishes well, looked very nice. Placement easy, no voids.
- Solid properties.
- Very nice posterior, blends into tooth.
- One shade.
- Polishability.
- It handles well, packs well, blends well, and polishes great.
- Easy to dispense.

#### Weaknesses

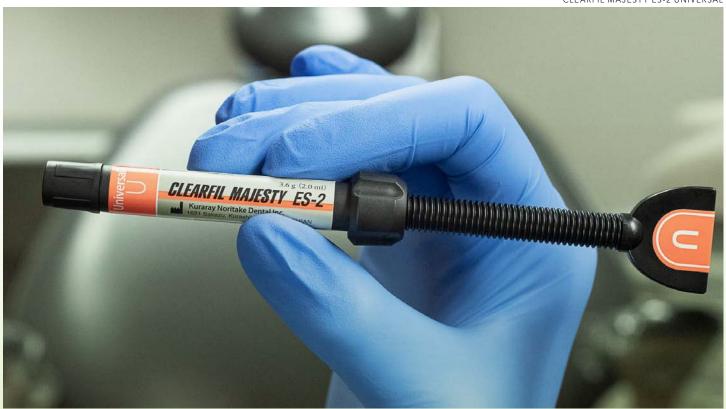


- For darker colored teeth, teeth that have more chroma and lower value, I felt that the composite did not always deliver a consistent "chameleon-like" effect.
- Without a shade behind it or if the cavitation is too thick, then the restoration comes out too whitish.
- Blended well for most posterior restorations but not quite as good a match as using specific shades.
   Doesn't have corresponding flowable.
- I still prefer a more traditional resin for my top layer.
- As with other universal composites, it does not match all shades always, although is ok for posterior composites.
- Had trouble getting tips into composite gun, but perhaps we were using the wrong gun.
- Not as easy to use as single shade Omnichroma.
- A bit harder to obtain high gloss compared to other nanofills. Only 2mm increments, which puts it behind so many bulk fills now.
- Color matching.
- Not a bulk fill material.

#### **BOTTOM LINE**

- If you are looking for a universal shade composite for posterior class I and class IIs where optimal esthetics is not critical, this is a good product that provides nice handling and working time. For anterior esthetics, this universal composite may require additional steps of opaquers and tints and may not get the consistent results you are looking for to replicate dentin and enamel and make the restoration "disappear".
- Great product. I have now put it in the exclusive drawer of stuff I use every day.
- Definitely worthwhile to have as part of composite options.
- Good all-arounder.
- This is a very nice composite material, good handling and easy placement, polishability. Shade matching is ok although it is definitely not matching all teeth.
- OK material.
- Nice product.
- Middle of the pack material, nothing to write home about. 2mm increments.
- Good for DSOs.
- Excellent product in the new family of "one size fits all" .....SO FAR
   A simple to use posterior composite that matches shades most of the time using a single universal shade. Good to have.





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## CLEARFIL MAJESTY ES-2

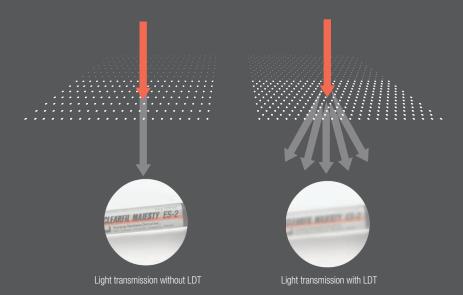
## Universal shade concept

#### ONE SHADE FOR ALL POSTERIOR RESTORATIONS

How many different shades of composite do you need in the posterior region? If you opt for CLEARFIL MAJESTY™ ES-2 Universal, a single shade will do the trick. The go-to solution for common posterior restorations, independent of the color of the underlying and adjacent tooth structure.

#### **NO OPAQUER NEEDED!**

A blocker or opaquer is not needed. This is due to the material's specific level of translucency and the integration of Kuraray Noritake Dental's **Light Diffusion Technology (LDT)**, which makes restorations diffuse light in a similar way tooth structure does. As a consequence, the material integrates easily and smoothly into the surrounding tooth structure and preparation margins become virtually invisible.



#### FOR YOU, THIS MEANS

- ✓ Simplified shade selection without a shade guide
- Efficient and comfortable procedure (single-shade technique, no blocker or opaquer)
- Fewer steps for consistent, predictable results
- Appealing outcomes that last

CLEARFIL MAJESTY™ ES-2 Universal offers the same superior mechanical properties as CLEARFIL MAJESTY™ ES-2 CLASSIC:

Flexural Strength:	118 MPa
Filler Load:	78 wt%
Compressive Strength:	347 MPa
Volumetric Shrinkage:	1.9 %
Curing Depth:	2.0 mm
Working time under ambient light:	270 sec.

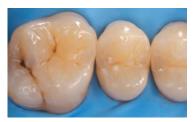
Source: Kuraray Noritake Dental Inc

#### **CLINICAL CASE**

## SIMPLIFIED POSTERIOR RESTORATION PROCEDURE ELIMINATING SHADE SELECTION

#### by Dr Piotr Marchewka

Efficiency is an important factor when it comes to restoring posterior cavities with resin composite. It may be achieved by selecting a material that eliminates the need for shade selection and by the use of simplified layering techniques. For example, in the clinical case below, a maxillary first molar and second premolar were restored with CLEARFIL MAJESTY™ ES-2 Universal (U) using the single-shade technique.



Initial situation. Carious lesions are detected on the occlusal and palatal surfaces of the first molar, and in the distal aspect of the second premolar. Rubber dam was placed for moisture control.



Appearance of the teeth following caries removal, selective etching of the enamel, and application of CLEARFIL™ SE BOND 2.



Sectional matrix in place. It is used to facilitate the creation of a proper interproximal contact.



Occlusal view of the final restorations produced with CLEARFIL MAJESTY™ ES-2 Universal.

#### PRODUCT ASSORTMENT

#### **CLEARFIL MAJESTY™ ES-2 Universal SYRINGE**

#3181-KA CLEARFIL MAJESTY™ ES-2 Universal (U) 1x Syringe 2.0ml (3.6g)



#### **CLEARFIL MAJESTY™ ES-2 Universal PLT**

#3191-KA CLEARFIL MAJESTY™ ES-2 Universal (U) 20x 0.25g PLT/pack

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- Before using this product, be sure to read the Instructions for Use supplied with the product.
- The specifications and appearance of the product are subject to change without notice.
  Printed color can be slightly different from actual color.

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