

Appendix: Material list

This appendix expands upon the material list referred to in Sec. 3.3 of our submission. As was described in Fig. 8, we assigned IDs to each material in the ascending order of mean angular errors of SBL (from zero to ninety-nine). Here we illustrate examples of input images and their corresponding material names in Fig. 1 and Table 1. Note that we have arranged exposure values to clarify the characteristics of each material. Also, while in reality each pixel has a 3-channel 32-bit floating point value, for all experiments we first converted to gray-scale.

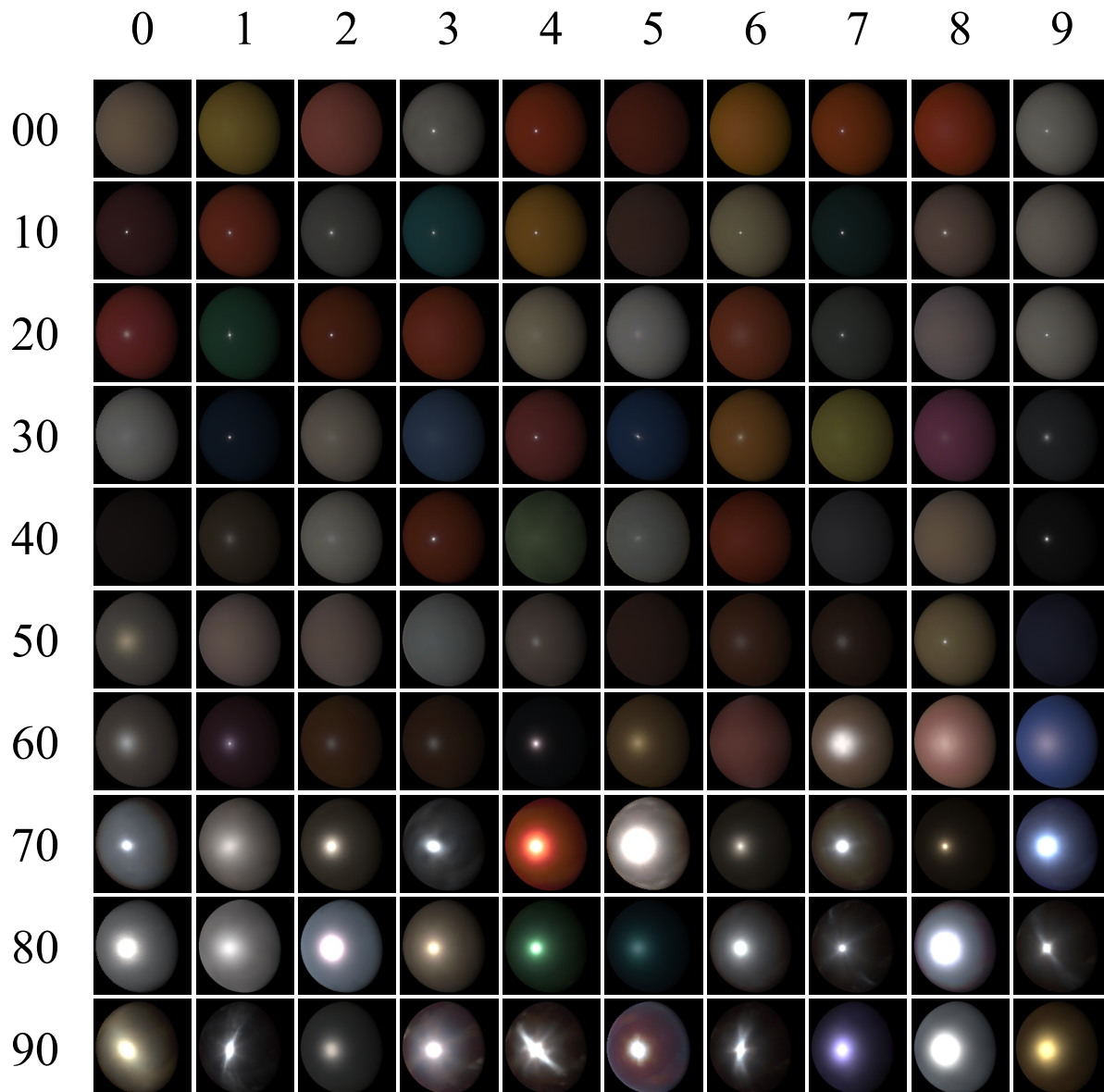


Figure 1. Examples of synthesized spheres from the MERL BRDF dataset [7]. Each image has 256×256 pixels. We aligned one hundred images based on material IDs in the column-major order.

Table 1. Material names and corresponding IDs (each material is named in the same manner with [7]). We assigned IDs to each material in the ascending order of mean angular errors of SBL (from zero to ninety-nine).

0	white-fabric	25	white-paint	50	pearl-paint	75	nickel
1	yellow-paint	26	red-plastic	51	pink-felt	76	two-layer-gold
2	pink-plastic	27	aventurine	52	beige-fabric	77	black-phenolic
3	white-marble	28	pink-fabric	53	polyethylene	78	gold-metallic-paint3
4	specular-red-phenolic	29	alumina-oxide	54	pickled-oak-260	79	blue-metallic-paint2
5	red-fabric2	30	teflon	55	light-brown-fabric	80	two-layer-silver
6	orange-paint	31	specular-blue-phenolic	56	colonial-maple-223	81	black-soft-plastic
7	specular-orange-phenolic	32	neoprene-rubber	57	cherry-235	82	color-changing-paint3
8	light-red-paint	33	blue-rubber	58	yellow-phenolic	83	alum-bronze
9	white-acrylic	34	maroon-plastic	59	blue-fabric	84	green-metallic-paint2
10	specular-violet-phenolic	35	blue-acrylic	60	silver-paint	85	green-metallic-paint
11	red-specular-plastic	36	yellow-matte-plastic	61	violet-acrylic	86	hematite
12	gray-plastic	37	yellow-plastic	62	natural-209	87	tungsten-carbide
13	green-plastic	38	violet-rubber	63	ipswich-pine-221	88	color-changing-paint1
14	specular-yellow-phenolic	39	pvc	64	color-changing-paint2	89	ss440
15	polyurethane-foam	40	black-fabric	65	gold-paint	90	brass
16	specular-white-phenolic	41	fruitwood-241	66	pink-fabric2	91	grease-covered-steel
17	specular-green-phenolic	42	delrin	67	special-walnut-224	92	silver-metallic-paint2
18	pink-jasper	43	red-phenolic	68	dark-specular-fabric	93	chrome
19	pure-rubber	44	green-latex	69	dark-blue-paint	94	chrome-steel
20	purple-paint	45	nylon	70	specular-black-phenolic	95	black-obsidian
21	green-acrylic	46	red-fabric	71	black-oxidized-steel	96	steel
22	specular-maroon-phenolic	47	green-fabric	72	gold-metallic-paint2	97	blue-metallic-paint
23	dark-red-paint	48	white-fabric2	73	aluminium	98	silver-metallic-paint
24	white-diffuse-bball	49	silicon-nitride	74	red-metallic-paint	99	gold-metallic-paint