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are added to 40 g of the above solution and the mixture is kneaded to a homogeneous composition.

-After hardening of the composition with visible light, highly transparent test pieces with a flexural strength (according to DIN 13 992) of 83.06 N/mm², a flexural modulus of 3,310 N/mm² and a diametral tensile strength (according to ADA 27) of 35.6 N/mm² are obtained.

EXAMPLE 2

39.2 of TEGDMA are added to 80 g of the silicic acid from Example 1 and 16.8 g of pyrogenic silicic acid with a BET surface area of 50 m²/g and a primary particle size of 45 nm in vacuo.

20.8 g of bis-GMA

0.15 g of the sulphonamide from Example 1

0.06 g of camphorquinone and

0.04 g of benzil dimethyl ketal

are added to 34.6 g of this mixture and the components are processed to a paste.

After hardening of the paste with visible light, transparent test pieces with the following mechanical properties are obtained:

flexural strength:	81.4 N/mm ²
flexural modulus:	3,738 N/mm ²
diametral tensile strength:	33 N/mm ² .

EXAMPLE 3

(Comparison)

A solution is prepared from:

67.2 g of bis-GMA

41.2 g of TEGDMA

1.1 g of Tinuvin P

0.04 g of ionol

0.54 g of the sulphonamide from Example 1

0.14 g of benzil dimethyl ketal and

0.22 g of camphorquinone.

85.0 g of a silicic acid silanized with 9.3% by weight of γ -methacryloxypropyltrimethoxysilane (Sylod ®Al 1 from Grace) with the following characteristic data:

pore volume:	0.4 ml/g
average particle size:	8 μ
BET surface area:	750 m ² /g
pore diameter	4 nm

are added to 62.0 g of the above solution.

An opaque paste is obtained.

Polymerization depth (Translux lamp) after exposure for seconds:	5.0 mm
flexural strength:	33.7 N/mm ²
flexural modulus:	4,186 N/mm ²
diametral tensile strength:	22.9 N/mm ² .

The paste can easily be polished, but cannot be used as a dental filling material because of its high opacity.

EXAMPLE 4

100 g of the activated solution from Example 3 are processed to a paste with 51 g of a silicic acid which is silanized with 12% by weight of γ -methacryloxy-

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propyltrimethoxysilane and has the following characteristic data:

pore volume:	1.6 ml/g
average particle diameter:	2 μ
BET surface area:	400 m ² /g
pore diameter:	about 18 nm.

After hardening with light, transparent test pieces which can very easily be polished are obtained.

Polymerization depth (Translux) after 30 seconds:	12 mm
flexural strength:	76.6 N/mm ²
flexural modulus:	3,697 N/mm ²
diametral tensile strength:	37.7 N/mm ² .

EXAMPLE 5

120 g of the activated solution from Example 3 are processed to a paste with 66 g of a silicic acid which is silanized with 18% by weight of γ -methacryloxypropyltrimethoxysilane and has the following characteristic data:

pore volume:	1.2 ml/g
average particle size:	12 μ
BET surface area:	400 m ² /g
pore diameter:	about 13 nm.

After hardening with light, adequately transparent test pieces which can very easily be polished are obtained.

Polymerization depth (Transflux)	
after 30 seconds:	8.8 mm
after 60 seconds:	11 mm
flexural strength:	69.3 N/mm ²
flexural modulus:	4,020 N/mm ²
diametral tensile strength:	37 N/mm ² .

EXAMPLE 6

(A)

0.2 g of benzoyl peroxide and

5.4 g of a silicic acid treated with hexamethyldisilazane (containing 10.5% by weight of trimethylsilyl groups)

are added to a mixture of:

5.5 g of bis-GMA

2.3 g of TEGDMA and 2.0 g of trimethylolpropane trimethacrylate:

pore diameter:	about 20 nm
pore volume:	1.8 ml/g
average particle diameter:	5 μ
BET surface area:	500 m ² /g.

and the mixture is processed to paste.

(B)

0.09 of N-methyl-N- β -methylcarbamoyloxypropyl)-3,5-dimethylaniline and

5.5 g of the silicic acid described under (A) are added to